# FCC RF TEST REPORT

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| Applicant: | Continental Automotive Systems, Inc. |
| Address: | 21440 W Lake Cook Rd., Deer Park, IL 60010, USA |

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| Manufacturer or Supplier: | Continental Automotive Systems, Inc. |
| Address: | 21440 W Lake Cook Rd., Deer Park, IL 60010, USA |
| Product: | Module |
| Brand Name: | Continental |
| Model Name: | FE5NAR110, FE5NAR111 |
| FCC ID: | LHJ-FE5NAR110 |
| Date of tests: | May. 01, 2024 ~ Jun. 17, 2024 |

The tests have been carried out according to the requirements of the following standard:

☒ **FCC PART 22, Subpart H** ☒ **FCC PART 24, Subpart E** ☒ **FCC Part 27, Subpart C, M** ☒ **ANSI/TIA/EIA-603-D**
☒ **FCC Part 2** ☒ **ANSI/TIA/EIA-603-E** ☒ **ANSI C63.26-2015**

CONCLUSION: The submitted sample was found to COMPLY with the test requirement

| Prepared by Simon Wang<br>Engineer / Mobile Department | Approved by Luke Lu<br>Manager / Mobile Department |
|---|---|
| Simon Wang<br>Date: Jun. 17, 2024 | Luke Lu<br>Date: Jun. 17, 2024 |

# TABLE OF CONTENTS

# RELEASE CONTROL RECORD

| ISSUE NO. | REASON FOR CHANGE | DATE ISSUED |
|---|---|---|
| W7L-240430W002RF01 | Original release | Jun. 17, 2024 |

# 1 SUMMARY OF TEST RESULTS

The EUT has been tested according to the following specifications:

| APPLIED STANDARD: FCC PART 22/24/27 & PART 2 | | | |
|---|---|---|---|
| **STANDARD SECTION** | **TEST TYPE AND LIMIT** | **RESULT** | **TEST LAB*** |
| §2.1046 | Conducted Output Power | Compliance | A/B |
| §24.232(c)<br>§27.50(h)(2)<br>§27.50(d)(4)<br>§27.50(j)(3) | Equivalent Isotropically Radiated Power<br>(5G NR n2,n25,n41,n66, n77,n78) | Compliance | A/B |
| §22.913 (a)<br>§27.50(c)(10) | Equivalent Radiated Power<br>(5G NR n5,n71) | Compliance | A/B |
| §2.1055<br>§22.355<br>§24.235<br>§27.54 | Frequency Stability | Compliance | A/B |
| §2.1049 | Occupied Bandwidth | Compliance | A/B |
| §2.1051<br>§22.917(a)<br>§24.238(a)<br>§27.53(g)<br>§27.53(h)<br>§27.53(l)(2)<br>§27.53(m)(4)(6) | Band Edge Measurements | Compliance | A/B |
| §2.1051<br>§22.917(a)<br>§24.238(a)<br>§27.53(g)<br>§27.53(h)<br>§27.53(l)(2)<br>§27.53(m)(4)(6) | Conducted Spurious Emissions | Compliance | A/B |

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|---|---|---|---|
| §2.1051<br>§22.917(a)<br>§24.238(a)<br>§27.53(g)<br>§27.53(h)<br>§27.53(l)(2)<br>§27.53(m)(4)(6) | Radiated Spurious Emissions | Compliance | A/B |
| §22.913(d)<br>§24.232(d)<br>§27.50(d)(5)<br>§27.50(j)(4) | Peak-to-Average Ratio | Compliance | A/B |

***Test Lab Information Reference**

**Lab A:**

BV 7Layers Communications Technology (Shenzhen) Co., Ltd

**Lab Address:**

Room B37, Warehouse A5, No.3 Chiwan 4th Road, Zhaoshang Street, Nanshan District Shenzhen, Guangdong, People's Republic of China

**Accredited Test Lab Cert 3939.01**

**FCC Site Registration No. : 525120; Designation No. : CN1171.**

**Lab B:**

Huarui 7Layers High Technology (Suzhou) Co., Ltd.

**Lab Address:**

Tower N, Innovation Center, 88 Zhuyi Road, High-tech District, Suzhou City, Anhui Province

**Accredited Test Lab Cert 6613.01**

**The FCC Site Registration No. is 434559; The Designation No. is CN1325.**

## 1.1 MEASREMENT UNCERTAINTY

Where relevant, the following measurement uncertainty levels have been estimated for tests performed on the EUT as specified in CISPR 16-4-2:

| MEASUREMENT | UNCERTAINTY |
|---|---|
| Frequency Stability | ±76.97Hz |
| Radiated emissions (9KHz~30MHz) | ±2.68dB |
| Radiated emissions & Radiated Power (30MHz~1GHz) | ±4.98dB |
| Radiated emissions & Radiated Power (1GHz ~6GHz) | ±4.70dB |
| Radiated emissions (6GHz ~18GHz) | ±4.60dB |
| Radiated emissions (18GHz ~40GHz) | ±4.12dB |
| Conducted emissions | ±4.01dB |
| Occupied Channel Bandwidth | ±43.58KHz |
| Conducted Output power | ±2.06dB |
| Band Edge Measurements | ±4.70dB |

This uncertainty represents an expanded uncertainty expressed at approximately the 95% confidence level using a coverage factor of k=2.

## 1.2 TEST SITE AND INSTRUMENTS

**Lab A:**

| Equipment | Manufacturer | Model No. | Serial No. | Last Cal. | Next Cal. |
|---|---|---|---|---|---|
| MXE EMI Receiver | KEYSIGHT | N9038A-544 | MY54450026 | Mar. 28,24 | Mar. 27,25 |
| EXA Signal Analyzer | KEYSIGHT | N9010A-544 | MY54510355 | May.10,23 | May.09,24 |
| EXA Signal Analyzer | KEYSIGHT | N9010A-544 | MY54510355 | May.09,24 | May.08,25 |
| Loop Antenna | Schwarzbeck | FMZB 1519B | 00173 | Sep.03,23 | Sep.02,24 |
| Bilog Antenna | ETS-LINDGREN | 3143B | 00161965 | Feb. 18,24 | Feb. 17,25 |
| Horn Antenna | ETS-LINDGREN | 3117 | 00168692 | Feb. 18,24 | Feb. 17,25 |
| Horn Antenna (18GHz-40GHz) | N/A | QWH-SL-18-40-K-SG/QMS-00361 | 15433 | Sep.04, 23 | Sep.03, 24 |
| Radio Communication Analyzer | ANRITSU | MT8820C | 6201465426 | Feb. 14,24 | Feb. 13,25 |
| Signal Pre-Amplifier | EMSI | EMC 9135 | 980249 | May. 06,23 | May. 05,24 |
| Signal Pre-Amplifier | EMSI | EMC 9135 | 980249 | May. 05,24 | May. 04,25 |
| Signal Pre-Amplifier | EMSI | EMC 012645B | 980257 | May.10,23 | May.09,24 |
| Signal Pre-Amplifier | EMSI | EMC 012645B | 980257 | May.09,24 | May.08,25 |
| Signal Pre-Amplifier | EMSI | EMC 184045B | 980259 | Feb. 17,24 | Feb.16,25 |
| 3m Semi-anechoic Chamber | ETS-LINDGREN | 9m*6m*6m | Euroshieldpn-CT0001143-1216 | Nov. 14,23 | Nov. 13,26 |
| Test Software | E3 | V 9.160323 | N/A | N/A | N/A |
| Test Software | JS1120 | 3.1.36 | N/A | N/A | N/A |
| 10dB Attenuator | JFW/USA | 50HF-010-SMA | 50HF-010-SMA | May. 06,23 | May. 05,24 |
| 10dB Attenuator | JFW/USA | 50HF-010-SMA | 50HF-010-SMA | May. 05,24 | May. 04,25 |
| Power Meter | Anritsu | ML2495A | 1506002 | Feb. 14,24 | Feb. 13,25 |
| Power Sensor | Anritsu | MA2411B | 1339352 | Feb. 14,24 | Feb. 13,25 |
| Temperature Chamber | ESPEC | SH-242 | 93000855 | May. 06,23 | May. 05,24 |
| Temperature Chamber | ESPEC | SH-242 | 93000855 | May. 05,24 | May. 04,25 |
| MXG Analog Microvave Signal Generator | KEYSIGHT | N5183A | MY50143024 | Feb. 14,24 | Feb. 13,25 |
| Base station R&S CMW500 | Rohde&Schwarz | CMW500 | 153085 | May.10,23 | May.09,24 |
| Base station R&S CMW500 | Rohde&Schwarz | CMW500 | 153085 | May.09,24 | May.08,25 |
| DC Source | Kikusui/JP | PMX18-5A | N/A | Aug. 11,23 | Aug. 10,24 |

**NOTE:** 1. The calibration interval of the above test instruments is 12 months or 36 months and the calibrations are traceable to CEPREI/CHINA, GRGT/CHINA and NIM/CHINA.

2. The test was performed in 3m Semi-anechoic Chamber and RF Oven Room.

3. The horn antenna is used only for the measurement of emission frequency above 1GHz if tested.

4. The FCC Site Registration No. is 525120; The Designation No. is CN1171.

**Lab B:**

| Equipment | Manufacturer | Model No. | Serial No. | Last Cal. | Next Cal. |
|---|---|---|---|---|---|
| Pre-Amplifier | R&S | SCU18F1 | 100815 | Aug.30,22 | Aug.29,24 |
| Pre-Amplifier | R&S | SCU08F1 | 101028 | Sep.16,22 | Sep.15,24 |
| Vector Signal Generator | R&S | SMBV100B | 102176 | Feb.16,24 | Feb.15,26 |
| Signal Generator | R&S | SMB100A | 182185 | Feb.16,24 | Feb.15,26 |
| 3m Fully-anechoic Chamber | TDK | 9m*6m*6m | HRSW-SZ-EMC-01Chamber | Nov.25,22 | Nov.24,25 |
| 3m Semi-anechoic Chamber | TDK | 9m*6m*6m | HRSW-SZ-EMC-02Chamber | Nov.25,22 | Nov.24,25 |
| EMI TEST Receiver | R&S | ESR26 | 101734 | Feb.25,24 | Feb.24,26 |
| EMI TEST Receiver | R&S | ESW44 | 101973 | Feb.25,24 | Feb.24,26 |
| Bilog Antenna | SCHWARZBECK | VULB 9163 | 1264 | Feb.28,24 | Feb.27,26 |
| Horn Antenna | ETS-LINDGREN | 3117 | 227836 | Aug.22,22 | Aug.21,24 |
| Horn Antenna (18GHz-40GHz) | Steatite Q-par Antennas | QMS 00880 | 23486 | Feb.23,24 | Feb.22,26 |
| Horn Antenna | Steatite Q-par Antennas | QMS 00208 | 23485 | Aug.22,22 | Aug.21,24 |
| Loop Antenna | SCHWARZ | HFH2-Z2/Z2E | 100976 | Feb.23,24 | Feb.22,26 |
| WIDEBANDRADIO COMMUNICATION TESTER | R&S | CMW500 | 169399 | Jun.27,22 | Jun.26,24 |
| Test Software | EMC32 | EMC32 | N/A | N/A | N/A |
| 6DB attenuator | Tonscend Technology Co., Ltd | N/A | 23062787 | N/A | N/A |
| Test Software | ELEKTRA | ELEKTRA4.32 | N/A | N/A | N/A |
| Open Switch and Control Unit | R&S | OSP220 | 101964 | Oct.01,22 | Sep.30,24 |
| DC Source | HYELEC | HY3010B | 551016 | Aug.31,22 | Aug.30,24 |
| Hygrothermograph | DELI | 20210528 | SZ014 | Sep.06,22 | Sep.05,24 |
| PC | LENOVO | E14 | HRSW0024 | N/A | N/A |
| TMC-AMI18843A(CABLE) | R&S | HF290-NMNM-7.00M | N/A | N/A | N/A |
| TMC-AMI18843A(CABLE) | R&S | HF290-NMNM-4.00M | N/A | N/A | N/A |
| CABLE | R&S | W13.02 | N/A | Apr.28,24 | Apr.27,25 |
| CABLE | R&S | W12.14 | N/A | Apr.28,24 | Apr.27,25 |
| CABLE | R&S | J12J103539-00-1 | SEP-03-20-069 | Apr.28,24 | Apr.27,25 |
| CABLE | R&S | J12J103539-00-1 | SEP-03-20-070 | Apr.28,24 | Apr.27,25 |
| Temperature Chamber | votsch | VT4002 | 58566078100050 | May.31,22 | May.30,24 |
| Temperature Chamber | votsch | VT4002 | 58566078100050 | May.30,24 | May.29,26 |

**NOTE:** 1. The calibration interval of the above test instruments is 12 months or 36 months and the calibrations are traceable to CEPREI/CHINA, GRGT/CHINA and NIM/CHINA.

2. The test was performed in 3m Semi-anechoic Chamber and RF Oven Room.

3. The horn antenna is used only for the measurement of emission frequency above 1GHz if tested.

4. The FCC Site Registration No. is 434559; The Designation No. is CN1325.

# 2 GENERAL INFORMATION

## 2.1 GENERAL DESCRIPTION OF EUT

| | | |
|---|---|---|
| **PRODUCT** | Module | |
| **BRAND NAME** | Continental | |
| **MODEL NAME** | FE5NAR110, FE5NAR111 | |
| **NOMINAL VOLTAGE** | DC4.0V | |
| **MODULATION TECHNOLOGY** | **5G NR** | DFT-s-OFDM(Pi/2BPSK,QPSK,16QAM,64QAM,256QAM);<br>CP-OFDM(QPSK,16QAM,64QAM,256QAM); |
| **SUPPORT ENDC COMBINE** | **NR Band n2** | LTE Band 5/12/14 |
| | **NR Band n5** | LTE Band 2/66 |
| | **NR Band n66** | LTE Band 5/12/14 |
| | **NR Band n77** | LTE Band 2/5/12/14/66 |
| | **NR Band n25** | Only SA Mode |
| | **NR Band n41** | |
| | **NR Band n77** | |
| **FREQUENCY RANGE** | **NR Band n2** | 1852.5MHz ~ 1907.5MHz |
| | **NR Band n5** | 826.5MHz ~ 846.5MHz |
| | **NR Band n25** | 1852.5MHz ~ 1912.5MHz |
| | **NR Band n41/n41 HPUE/n41 MIMO** | 2506.02MHz ~ 2679.99MHz |
| | **NR Band n66** | 1712.5MHz ~ 1777.5MHz |
| | **NR Band n71** | 665.5MHz ~ 695.5MHz |
| | **NR Band n77/n77 HPUE/n77 MIMO** | 3710.01MHz ~ 3969.99MHz |
| **EMISSION DESIGNATOR (SISO)** | **NR Band n2**<br>**Channel Bandwidth: 5+5MHz** | DFT-PI2BPSK 4M47G7D<br>DFT-QPSK 4M46G7D<br>DFT-16QAM 4M46W7D<br>DFT-64QAM 4M47W7D<br>DFT-256QAM 4M48W7D |

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| | **NR Band n2**<br>**Channel Bandwidth: 5+10MHz** | DFT-PI2BPSK 8M93G7D<br>DFT-QPSK 8M90G7D<br>DFT-16QAM 8M94W7D<br>DFT-64QAM 8M92W7D<br>DFT-256QAM 8M92W7D |
| | **NR Band n2**<br>**Channel Bandwidth: 5+15MHz** | DFT-PI2BPSK 13M4G7D<br>DFT-QPSK 13M4G7D<br>DFT-16QAM 13M4W7D<br>DFT-64QAM 13M4W7D<br>DFT-256QAM 13M4W7D |
| | **NR Band n2**<br>**Channel Bandwidth: 5+20MHz** | DFT-PI2BPSK 17M8G7D<br>DFT-QPSK 17M9G7D<br>DFT-16QAM 17M9W7D<br>DFT-64QAM 17M9W7D<br>DFT-256QAM 17M9W7D |
| | **NR Band n5**<br>**Channel Bandwidth: 5+5MHz** | DFT-PI2BPSK 4M48G7D<br>DFT-QPSK 4M46G7D<br>DFT-16QAM 4M46W7D<br>DFT-64QAM 4M47W7D<br>DFT-256QAM 4M48W7D |
| | **NR Band n5**<br>**Channel Bandwidth: 5+10MHz** | DFT-PI2BPSK 8M91G7D<br>DFT-QPSK 8M90G7D<br>DFT-16QAM 8M95W7D<br>DFT-64QAM 8M91W7D<br>DFT-256QAM 8M92W7D |
| | **NR Band n5**<br>**Channel Bandwidth: 5+15MHz** | DFT-PI2BPSK 13M4G7D<br>DFT-QPSK 13M4G7D<br>DFT-16QAM 13M4W7D<br>DFT-64QAM 13M4W7D<br>DFT-256QAM 13M4W7D |
| | **NR Band n5**<br>**Channel Bandwidth: 5+20MHz** | DFT-PI2BPSK 17M8G7D<br>DFT-QPSK 17M8G7D<br>DFT-16QAM 17M9W7D<br>DFT-64QAM 17M9W7D<br>DFT-256QAM 17M8W7D |

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| | **NR Band n25**<br>**Channel Bandwidth: 5MHz** | DFT-PI2BPSK 4M49G7D<br>DFT-QPSK 4M53G7D<br>DFT-16QAM 4M46W7D<br>DFT-64QAM 4M47W7D<br>DFT-256QAM 4M48W7D |
| | **NR Band n25**<br>**Channel Bandwidth: 10MHz** | DFT-PI2BPSK 8M89G7D<br>DFT-QPSK 8M89G7D<br>DFT-16QAM 8M92W7D<br>DFT-64QAM 8M91W7D<br>DFT-256QAM 8M90W7D |
| | **NR Band n25**<br>**Channel Bandwidth: 15MHz** | DFT-PI2BPSK 13M4G7D<br>DFT-QPSK 13M4G7D<br>DFT-16QAM 13M4W7D<br>DFT-64QAM 13M4W7D<br>DFT-256QAM 13M4W7D |
| | **NR Band n25**<br>**Channel Bandwidth: 20MHz** | DFT-PI2BPSK 17M8G7D<br>DFT-QPSK 17M8G7D<br>DFT-16QAM 17M9W7D<br>DFT-64QAM 17M8W7D<br>DFT-256QAM 17M9W7D |
| | **NR Band n41**<br>**Channel Bandwidth: 20MHz** | DFT-PI2BPSK 17M8G7D<br>DFT-QPSK 17M8G7D<br>DFT-16QAM 17M9W7D<br>DFT-64QAM 17M8W7D<br>DFT-256QAM 17M8W7D |
| | **NR Band n41**<br>**Channel Bandwidth: 30MHz** | DFT-PI2BPSK 26M8G7D<br>DFT-QPSK 26M7G7D<br>DFT-16QAM 26M7W7D<br>DFT-64QAM 26M7W7D<br>DFT-256QAM 26M7W7D |
| | **NR Band n41**<br>**Channel Bandwidth: 40MHz** | DFT-PI2BPSK 35M6G7D<br>DFT-QPSK 35M7G7D<br>DFT-16QAM 35M7W7D<br>DFT-64QAM 35M7W7D<br>DFT-256QAM 35M7W7D |
| | **NR Band n41**<br>**Channel Bandwidth: 50MHz** | DFT-PI2BPSK 45M7G7D<br>DFT-QPSK 45M7G7D<br>DFT-16QAM 45M7W7D<br>DFT-64QAM 45M6W7D<br>DFT-256QAM 45M7W7D |

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| | **NR Band n41**<br>**Channel Bandwidth: 60MHz** | DFT-PI2BPSK 57M7G7D<br>DFT-QPSK 57M8G7D<br>DFT-16QAM 57M7W7D<br>DFT-64QAM 57M7W7D<br>DFT-256QAM 57M7W7D |
| | **NR Band n41**<br>**Channel Bandwidth: 80MHz** | DFT-PI2BPSK 77M0G7D<br>DFT-QPSK 77M0G7D<br>DFT-16QAM 76M8W7D<br>DFT-64QAM 77M1W7D<br>DFT-256QAM 77M0W7D |
| | **NR Band n41**<br>**Channel Bandwidth: 90MHz** | DFT-PI2BPSK 86M6G7D<br>DFT-QPSK 86M5G7D<br>DFT-16QAM 86M7W7D<br>DFT-64QAM 86M4W7D<br>DFT-256QAM 86M4W7D |
| | **NR Band n41**<br>**Channel Bandwidth: 100MHz** | DFT-PI2BPSK 96M1G7D<br>DFT-QPSK 96M1G7D<br>DFT-16QAM 96M2W7D<br>DFT-64QAM 96M1W7D<br>DFT-256QAM 96M1W7D |
| | **NR Band n66**<br>**Channel Bandwidth: 5MHz** | DFT-PI2BPSK 4M47G7D<br>DFT-QPSK 4M47G7D<br>DFT-16QAM 4M45W7D<br>DFT-64QAM 4M46W7D<br>DFT-256QAM 4M47W7D |
| | **NR Band n66**<br>**Channel Bandwidth: 10MHz** | DFT-PI2BPSK 8M90G7D<br>DFT-QPSK 8M90G7D<br>DFT-16QAM 8M90W7D<br>DFT-64QAM 8M90W7D<br>DFT-256QAM 8M90W7D |
| | **NR Band n66**<br>**Channel Bandwidth: 15MHz** | DFT-PI2BPSK 13M4G7D<br>DFT-QPSK 13M4G7D<br>DFT-16QAM 13M4W7D<br>DFT-64QAM 13M4W7D<br>DFT-256QAM 13M4W7D |
| | **NR Band n66**<br>**Channel Bandwidth: 20MHz** | DFT-PI2BPSK 17M8G7D<br>DFT-QPSK 17M8G7D<br>DFT-16QAM 17M9W7D<br>DFT-64QAM 17M9W7D<br>DFT-256QAM 17M8W7D |

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| | **NR Band n66**<br>**Channel Bandwidth: 30MHz** | DFT-PI2BPSK 28M5G7D<br>DFT-QPSK 28M6G7D<br>DFT-16QAM 28M5W7D<br>DFT-64QAM 28M5W7D<br>DFT-256QAM 28M5W7D |
| | **NR Band n66**<br>**Channel Bandwidth: 40MHz** | DFT-PI2BPSK 38M4G7D<br>DFT-QPSK 38M5G7D<br>DFT-16QAM 38M4W7D<br>DFT-64QAM 38M5W7D<br>DFT-256QAM 38M5W7D |
| | **NR Band n71**<br>**Channel Bandwidth: 5MHz** | DFT-PI2BPSK 4M48G7D<br>DFT-QPSK 4M46G7D<br>DFT-16QAM 4M46W7D<br>DFT-64QAM 4M47W7D<br>DFT-256QAM 4M47W7D |
| | **NR Band n71**<br>**Channel Bandwidth: 10MHz** | DFT-PI2BPSK 8M90G7D<br>DFT-QPSK 8M90G7D<br>DFT-16QAM 8M92W7D<br>DFT-64QAM 8M90W7D<br>DFT-256QAM 8M91W7D |
| | **NR Band n71**<br>**Channel Bandwidth: 15MHz** | DFT-PI2BPSK 13M4G7D<br>DFT-QPSK 13M4G7D<br>DFT-16QAM 13M4W7D<br>DFT-64QAM 13M4W7D<br>DFT-256QAM 13M4W7D |
| | **NR Band n71**<br>**Channel Bandwidth: 20MHz** | DFT-PI2BPSK 17M8G7D<br>DFT-QPSK 17M8G7D<br>DFT-16QAM 17M9W7D<br>DFT-64QAM 17M8W7D<br>DFT-256QAM 17M8W7D |
| | **NR Band 77**<br>**Channel Bandwidth: 20MHz** | DFT-PI2BPSK 17M8G7D<br>DFT-QPSK 17M8G7D<br>DFT-16QAM 17M9W7D<br>DFT-64QAM 17M8W7D<br>DFT-256QAM 17M8W7D |
| | **NR Band 77**<br>**Channel Bandwidth: 30MHz** | DFT-PI2BPSK 26M8G7D<br>DFT-QPSK 26M7G7D<br>DFT-16QAM 26M7W7D<br>DFT-64QAM 26M7W7D<br>DFT-256QAM 26M7W7D |

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| | **NR Band 77**<br>**Channel Bandwidth: 40MHz** | DFT-PI2BPSK 35M7G7D<br>DFT-QPSK 35M6G7D<br>DFT-16QAM 35M7W7D<br>DFT-64QAM 35M7W7D<br>DFT-256QAM 35M7W7D |
| | **NR Band 77**<br>**Channel Bandwidth: 50MHz** | DFT-PI2BPSK 45M7G7D<br>DFT-QPSK 45M7G7D<br>DFT-16QAM 45M7W7D<br>DFT-64QAM 45M7W7D<br>DFT-256QAM 45M7W7D |
| | **NR Band 77**<br>**Channel Bandwidth: 60MHz** | DFT-PI2BPSK 57M8G7D<br>DFT-QPSK 57M9G7D<br>DFT-16QAM 57M7W7D<br>DFT-64QAM 57M8W7D<br>DFT-256QAM 57M8W7D |
| | **NR Band 77**<br>**Channel Bandwidth: 70MHz** | DFT-PI2BPSK 64M2G7D<br>DFT-QPSK 64M2G7D<br>DFT-16QAM 64M2W7D<br>DFT-64QAM 64M1W7D<br>DFT-256QAM 64M1W7D |
| | **NR Band 77**<br>**Channel Bandwidth: 80MHz** | DFT-PI2BPSK 77M1G7D<br>DFT-QPSK 77M0G7D<br>DFT-16QAM 76M9W7D<br>DFT-64QAM 77M2W7D<br>DFT-256QAM 77M0W7D |
| | **NR Band 77**<br>**Channel Bandwidth: 90MHz** | DFT-PI2BPSK 86M7G7D<br>DFT-QPSK 86M6G7D<br>DFT-16QAM 86M8W7D<br>DFT-64QAM 86M4W7D<br>DFT-256QAM 86M5W7D |
| | **NR Band 77**<br>**Channel Bandwidth: 100MHz** | DFT-PI2BPSK 96M2G7D<br>DFT-QPSK 96M3G7D<br>DFT-16QAM 96M3W7D<br>DFT-64QAM 96M2W7D<br>DFT-256QAM 96M2W7D |

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| **EMISSION DESIGNATOR (MIMO)** | **NR Band 41 Channel Bandwidth: 20MHz** | CP-QPSK 18M2G7D<br>CP-16QAM 18M2W7D<br>CP-64QAM 18M1W7D<br>CP-256QAM 18M2W7D |
| | **NR Band 41 Channel Bandwidth: 30MHz** | CP-QPSK 27M8G7D<br>CP-16QAM 27M7W7D<br>CP-64QAM 27M8W7D<br>CP-256QAM 27M7W7D |
| | **NR Band 41 Channel Bandwidth: 40MHz** | CP-QPSK 37M7G7D<br>CP-16QAM 37M7W7D<br>CP-64QAM 37M8W7D<br>CP-256QAM 37M7W7D |
| | **NR Band 41 Channel Bandwidth: 50MHz** | CP-QPSK 47M5G7D<br>CP-16QAM 47M5W7D<br>CP-64QAM 47M4W7D<br>CP-256QAM 47M5W7D |
| | **NR Band 41 Channel Bandwidth: 60MHz** | CP-QPSK 57M6G7D<br>CP-16QAM 57M8W7D<br>CP-64QAM 57M8W7D<br>CP-256QAM 57M8W7D |
| | **NR Band 41 Channel Bandwidth: 80MHz** | CP-QPSK 77M4G7D<br>CP-16QAM 77M3W7D<br>CP-64QAM 77M2W7D<br>CP-256QAM 77M3W7D |
| | **NR Band 41 Channel Bandwidth: 90MHz** | CP-QPSK 87M3G7D<br>CP-16QAM 87M2W7D<br>CP-64QAM 87M5W7D<br>CP-256QAM 87M4W7D |
| | **NR Band 41 Channel Bandwidth: 100MHz** | CP-QPSK 97M1G7D<br>CP-16QAM 97M2W7D<br>CP-64QAM 97M2W7D<br>CP-256QAM 97M0W7D |

| | | |
|---|---|---|
| **EMISSION DESIGNATOR (MIMO)** | **NR Band 77 Channel Bandwidth: 20MHz** | CP-QPSK 18M2G7D<br>CP-16QAM 18M2W7D<br>CP-64QAM 18M2W7D<br>CP-256QAM 18M2W7D |
| | **NR Band 77 Channel Bandwidth: 30MHz** | CP-QPSK 27M8G7D<br>CP-16QAM 27M8W7D<br>CP-64QAM 27M8W7D<br>CP-256QAM 27M8W7D |
| | **NR Band 77 Channel Bandwidth: 40MHz** | CP-QPSK 37M8G7D<br>CP-16QAM 37M8W7D<br>CP-64QAM 37M8W7D<br>CP-256QAM 37M8W7D |
| | **NR Band 77 Channel Bandwidth: 50MHz** | CP-QPSK 47M6G7D<br>CP-16QAM 47M5W7D<br>CP-64QAM 47M5W7D<br>CP-256QAM 47M6W7D |
| | **NR Band 77 Channel Bandwidth: 60MHz** | CP-QPSK 57M8G7D<br>CP-16QAM 57M9W7D<br>CP-64QAM 57M9W7D<br>CP-256QAM 57M7W7D |
| | **NR Band 77 Channel Bandwidth: 70MHz** | CP-QPSK 67M3G7D<br>CP-16QAM 67M5W7D<br>CP-64QAM 67M4W7D<br>CP-256QAM 67M5W7D |
| | **NR Band 77 Channel Bandwidth: 80MHz** | CP-QPSK 77M4G7D<br>CP-16QAM 77M3W7D<br>CP-64QAM 77M4W7D<br>CP-256QAM 77M4W7D |
| | **NR Band 77 Channel Bandwidth: 90MHz** | CP-QPSK 87M4G7D<br>CP-16QAM 87M2W7D<br>CP-64QAM 87M5W7D<br>CP-256QAM 87M3W7D |
| | **NR Band 77 Channel Bandwidth: 100MHz** | CP-QPSK 97M1G7D<br>CP-16QAM 97M2W7D<br>CP-64QAM 97M4W7D<br>CP-256QAM 97M2W7D |

| | | |
|---|---|---|
| **5G SISO MAX. EIRP POWER** | **NR Band n2 Channel Bandwidth: 5MHz** | 326.59 mW |
| | **NR Band n2 Channel Bandwidth: 10MHz** | 329.61 mW |
| | **NR Band n2 Channel Bandwidth: 15MHz** | 325.84 mW |
| | **NR Band n2 Channel Bandwidth: 20MHz** | 337.29 mW |
| | **NR Band n5 Channel Bandwidth: 5MHz** | 233.35 mW |
| | **NR Band n5 Channel Bandwidth: 10MHz** | 233.35 mW |
| | **NR Band n5 Channel Bandwidth: 15MHz** | 233.35 mW |
| | **NR Band n5 Channel Bandwidth: 20MHz** | 237.14 mW |
| | **NR Band n25 Channel Bandwidth: 5MHz** | 381.94 mW |
| | **NR Band n25 Channel Bandwidth: 10MHz** | 384.59 mW |
| | **NR Band n25 Channel Bandwidth: 15MHz** | 382.82 mW |
| | **NR Band n25 Channel Bandwidth: 20MHz** | 389.05 mW |

| | | |
|---|---|---|
| 5G SISO MAX. EIRP POWER | NR Band n41 Channel Bandwidth: 20MHz | 287.74 mW |
| | NR Band n41 Channel Bandwidth: 30MHz | 291.07 mW |
| | NR Band n41 Channel Bandwidth: 40MHz | 286.42 mW |
| | NR Band n41 Channel Bandwidth: 50MHz | 287.74 mW |
| | NR Band n41 Channel Bandwidth: 60MHz | 292.42 mW |
| | NR Band n41 Channel Bandwidth: 80MHz | 293.09 mW |
| | NR Band n41 Channel Bandwidth: 90MHz | 293.76 mW |
| | NR Band n41 Channel Bandwidth: 100MHz | 294.44 mW |
| | NR Band n41 HPUE Channel Bandwidth: 20MHz | 586.14 mW |
| | NR Band n41 HPUE Channel Bandwidth: 30MHz | 587.49 mW |
| | NR Band n41 HPUE Channel Bandwidth: 40MHz | 580.76 mW |
| | NR Band n41 HPUE Channel Bandwidth: 50MHz | 582.1 mW |
| | NR Band n41 HPUE Channel Bandwidth: 60MHz | 579.43 mW |

| | | |
|---|---|---|
| 5G SISO MAX. EIRP POWER | NR Band n41 HPUE Channel Bandwidth: 80MHz | 580.76 mW |
| | NR Band n41 HPUE Channel Bandwidth: 90MHz | 582.1 mW |
| | NR Band n41 HPUE Channel Bandwidth: 100MHz | 591.56 mW |
| | NR Band n66 Channel Bandwidth: 5MHz | 335.74 mW |
| | NR Band n66 Channel Bandwidth: 10MHz | 336.51 mW |
| | NR Band n66 Channel Bandwidth: 15MHz | 332.66 mW |
| | NR Band n66 Channel Bandwidth: 20MHz | 338.84 mW |
| | NR Band n66 Channel Bandwidth: 30MHz | 332.66 mW |
| | NR Band n66 Channel Bandwidth: 40MHz | 341.19 mW |
| | NR Band n71 Channel Bandwidth: 5MHz | 162.18 mW |
| | NR Band n71 Channel Bandwidth: 10MHz | 161.06 mW |
| | NR Band n71 Channel Bandwidth: 15MHz | 159.59 mW |

| | | |
|---|---|---|
| 5G SISO MAX. EIRP POWER | NR Band n71 Channel Bandwidth: 20MHz | 162.93 mW |
| | NR Band 77 Channel Bandwidth: 20MHz | 210.86 mW |
| | NR Band 77 Channel Bandwidth: 30MHz | 209.89 mW |
| | NR Band 77 Channel Bandwidth: 40MHz | 209.41 mW |
| | NR Band 77 Channel Bandwidth: 50MHz | 210.86 mW |
| | NR Band 77 Channel Bandwidth: 60MHz | 210.86 mW |
| | NR Band 77 Channel Bandwidth: 70MHz | 214.29 mW |
| | NR Band 77 Channel Bandwidth: 80MHz | 209.89 mW |
| | NR Band 77 Channel Bandwidth: 90MHz | 213.8 mW |
| | NR Band 77 Channel Bandwidth: 100MHz | 214.78 mW |
| | NR Band 77 HPUE Channel Bandwidth: 20MHz | 409.26 mW |
| | NR Band 77 HPUE Channel Bandwidth: 30MHz | 417.83 mW |
| | NR Band 77 HPUE Channel Bandwidth: 40MHz | 414.95 mW |
| | NR Band 77 HPUE Channel Bandwidth: 50MHz | 414.95 mW |
| | NR Band 77 HPUE Channel Bandwidth: 60MHz | 411.15 mW |
| | NR Band 77 HPUE Channel Bandwidth: 70MHz | 410.2 mW |

| | | |
|---|---|---|
| | **NR Band 77 HPUE Channel Bandwidth: 80MHz** | 412.1 mW |
| | **NR Band 77 HPUE Channel Bandwidth: 90MHz** | 408.32 mW |
| | **NR Band 77 HPUE Channel Bandwidth: 100MHz** | 419.76 mW |
| **5G MIMO MAX. EIRP POWER** | **NR Band n41 Channel Bandwidth: 20MHz** | 448.75 mW |
| | **NR Band n41 Channel Bandwidth: 30MHz** | 456.04 mW |
| | **NR Band n41 Channel Bandwidth: 40MHz** | 458.14 mW |
| | **NR Band n41 Channel Bandwidth: 50MHz** | 453.94 mW |
| | **NR Band n41 Channel Bandwidth: 60MHz** | 457.09 mW |
| | **NR Band n41 Channel Bandwidth: 80MHz** | 450.82 mW |
| | **NR Band n41 Channel Bandwidth: 90MHz** | 453.94 mW |
| | **NR Band n41 Channel Bandwidth: 100MHz** | 517.61 mW |
| | **NR Band 77 Channel Bandwidth: 20MHz** | 422.67 mW |
| | **NR Band 77 Channel Bandwidth: 30MHz** | 417.83 mW |
| | **NR Band 77 Channel Bandwidth: 40MHz** | 424.62 mW |

| | | |
|---|---|---|
| **5G MIMO MAX. EIRP POWER** | **NR Band 77 Channel Bandwidth: 50MHz** | 417.83 mW |
| | **NR Band 77 Channel Bandwidth: 60MHz** | 438.53 mW |
| | **NR Band 77 Channel Bandwidth: 70MHz** | 422.67 mW |
| | **NR Band 77 Channel Bandwidth: 80MHz** | 419.76 mW |
| | **NR Band 77 Channel Bandwidth: 90MHz** | 425.6 mW |
| | **NR Band 77 Channel Bandwidth: 100MHz** | 428.55 mW |
| **ANTENNA GAIN** | NR Band n2: ANT1/1.93<br>NR Band n5: ANT1/2.56<br>NR Band n25: ANT1/2.56<br>NR Band n41: ANT1/1.24, ANT 2/1.24<br>NR Band n66: ANT1/1.93<br>NR Band n71: ANT1/0.94<br>NR Band n77: ANT1/0.53, ANT 2/0.53 | |
| **ANTENNA TYPE** | Monopole Antenna | |
| **HW VERSION** | P2.0 | |
| **SW VERSION** | MODEM_GM_C3_3.0.2.24 | |
| **I/O PORTS** | Refer to user's manual | |
| **CABLE SUPPLIED** | N/A | |
| **EXTREME TEMPERATURE** | -40-85 ℃ | |
| **EXTREME VOLTAGE** | 3.8V - 4.2V | |

**NOTE**:

1. For a more detailed features description, please refer to the manufacturer's specifications or the user's manual.

2. The EUT incorporates a MIMO function for N41/77 and a siso function for N2/5/25/66/71.

| MODULATION MODE | TX FUNCTION |
|---|---|
| **N41/77** | 2TX |
| **N2/5/25/66/71** | 1TX |

3. For the test results, the EUT had been tested with all conditions. But only the worst case was shown in the test report. (For ENDC band RSE test, all combinations had been considered, only the combination with worse dada of each NR band had been reported.)

4. Antenna gain and EUT conducted cable loss are provided by the customer, and the laboratory will record the results based on these items that involve these two parameters.
5. For UL_MIMO Mode, according to the KDB 662911 D01, Basic methodology with NANT transmit antennas, each with the same directional gain GANT dBi, being driven by NANT transmitter outputs of equal power. Directional gain is to be computed as follows:
   Directional gain = $G_{ANT}$ + 10 log($N_{ANT}$) dBi **(**For any transmit signals that are *correlated* with each other**).**
   So the Gain of N41/77 can be calculated as below:

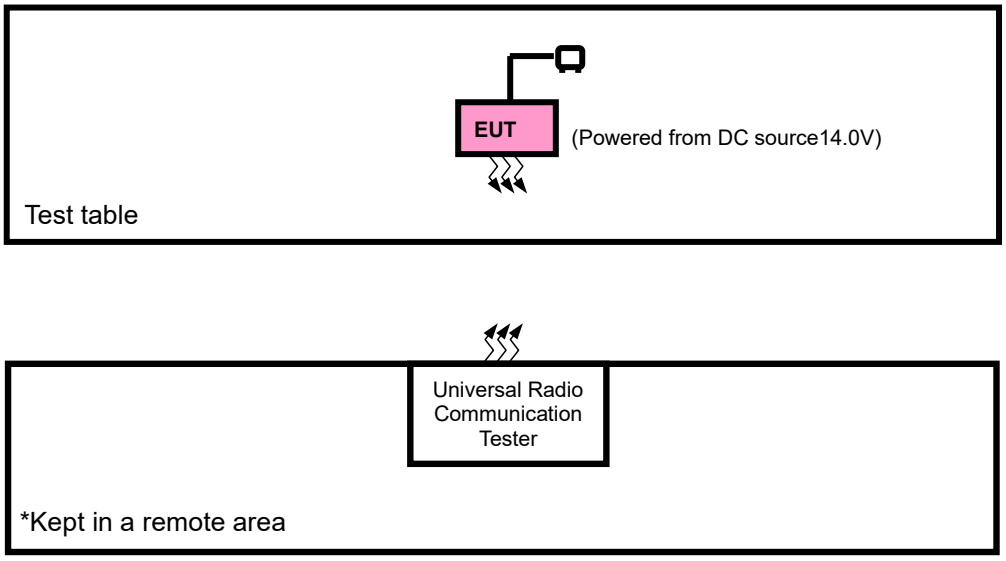
| NR Band | $G_{ANT}$ (All antennas with the same Gain) | Directional gain |
|---|---|---|
| 41 | 1.24dBi | 4.25dBi |
| 77 | 0.53dBi | 3.54dBi |

6. According to the information provided by the manufacturer, The difference between FE5NAR110, FE5NAR111 is as follows:

| Sample | HVIN/PMN | 5G Bands NSA | 5G Bands SA | SA UL MIMO | LTE Bands | UMTS | GNSS |
|---|---|---|---|---|---|---|---|
| 1 | FE5NAR110 | n2, n5, n66, n77 | n25, n41, n66, n71, n77 | n41, n77, n78 | 2, 4, 5, 7, 12, 13, 14, 28A, 28B, 29Rx, 30Rx, 66, 71 | 2, 4, 5 | L1, L5 |
| 2 | FE5NAR111 | n2, n5, n66, n77 | n25, n41, n66, n71, n77 | n41, n77, n78 | 2, 4, 5, 7, 12, 13, 14, 28A, 28B, 29Rx, 30Rx, 66, 71 | 2, 4, 5 | L1 |

## 2.2 CONFIGURATION OF SYSTEM UNDER TEST

### FOR RADIATION EMISSION TEST



## 2.3 DESCRIPTION OF SUPPORT UNITS

The EUT has been tested as an independent unit together with other necessary accessories or support units. The following support units or accessories were used to form a representative test configuration during the tests.

| NO. | PRODUCT | BRAND | MODEL NO. | SERIAL NO. | FCC ID |
|---|---|---|---|---|---|
| 1 | DC source | LONG WEI | PS-6403D | 010934269 | N/A |

| NO. | SIGNAL CABLE DESCRIPTION OF THE ABOVE SUPPORT UNITS |
|---|---|
| 1 | DC Line: Unshielded, Detachable 1.8m |

## 2.4 TEST ITEM AND TEST CONFIGURATION

Pre-Scan has been conducted to determine the worst-case mode from all possible combinations between available modulations, data rates, XYZ axis and antenna ports The worst case was found when positioned on Y-plane for EIRP and X-axis for radiated emission. Following channel(s) was (were) selected for the final test as listed below:

| EUT CONFIGURE MODE | DESCRIPTION |
|---|---|
| A | EUT + DC Source with 5G NR link |

## 5G NR n2 MODE

| EUT CONFIGURE MODE | TEST ITEM | AVAILABLE CP-OFDM CHANNEL | AVAILABLE DFT-S-OFDM CHANNEL | TESTED CHANNEL | CHANNEL BANDWIDTH | MODULATION | MODE(DFT-S-OFDM) (INCLUDE CP-OFDM) |
|---|---|---|---|---|---|---|---|
| A | EIRP | 370500 to 381500 | 370500 to 381500 | Low, Middle, High | 5MHz | QPSK | 1RB/ 0RB Offset |
| | | 371000 to 381000 | 371000 to 381000 | Low, Middle, High | 10MHz | QPSK | 1RB/ 0RB Offset |
| | | 371500 to 380500 | 371500 to 380500 | Low, Middle, High | 15MHz | QPSK | 1RB/ 0RB Offset |
| | | 372000 to 380000 | 372000 to 380000 | Low, Middle, High | 20MHz | Pi/2BPSK,QPSK,16QAM, 64QAM, 256QAM | 1RB/ 0RB Offset |
| B | FREQUENCY STABILITY | 372000 to 380000 | 372000 to 380000 | Low, Middle, High | 20MHz | QPSK | Outer_ Full |
| A | PEAK TO AVERAGE RATIO | 372000 to 380000 | 372000 to 380000 | Low, Middle, High | 20MHz | QPSK | 1RB/ 0RB Offset |
| | | | | | | | Outer_ Full |
| A | OCCUPIED BANDWIDTH | 370500 to 381500 | 370500 to 381500 | Low, Middle, High | 5MHz | Pi/2BPSK,QPSK,16QAM, 64QAM, 256QAM | Outer_ Full |
| | | 371000 to 381000 | 371000 to 381000 | Low, Middle, High | 10MHz | Pi/2BPSK,QPSK,16QAM, 64QAM, 256QAM | Outer_ Full |
| | | 371500 to 380500 | 371500 to 380500 | Low, Middle, High | 15MHz | Pi/2BPSK,QPSK,16QAM, 64QAM, 256QAM | Outer_ Full |
| | | 372000 to 380000 | 372000 to 380000 | Low, Middle, High | 20MHz | Pi/2BPSK,QPSK,16QAM, 64QAM, 256QAM | Outer_ Full |
| A | BAND EDGE | 370500 to 381500 | 370500 to 381500 | Low | 5MHz | QPSK | 1RB/ 0RB Offset |
| | | | | | | | Outer_ Full |
| | | | | High | 5MHz | QPSK | 1RB/ 24 RB Offset |
| | | | | | | | Outer_ Full |
| | | 371000 to 381000 | 371000 to 381000 | Low | 10MHz | QPSK | 1RB/ 0RB Offset |
| | | | | | | | Outer_ Full |
| | | | | High | 10MHz | QPSK | 1RB/ 51 RB Offset |
| | | | | | | | Outer_ Full |
| | | 371500 to 380500 | 371500 to 380500 | Low | 15MHz | QPSK | 1RB/ 0RB Offset |
| | | | | | | | Outer_ Full |
| | | | | High | 15MHz | QPSK | 1RB/ 78RB Offset |
| | | | | | | | Outer_ Full |
| | | 372000 to 380000 | 372000 to 380000 | Low | 20MHz | QPSK | 1RB/ 0RB Offset |
| | | | | | | | Outer_ Full |
| | | | | High | 20MHz | QPSK | 1RB/ 105 RB Offset |
| | | | | | | | Outer_ Full |
| A | CONDUCTED EMISSION | 370500 to 381500 | 370500 to 381500 | Low, Middle, High | 5MHz | QPSK | 1RB/ 0RB Offset |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| | | 371000 to 381000 | 371000 to 381000 | Low, Middle, High | 10MHz | QPSK | 1RB/ 0RB Offset |
| | | 371500 to 380500 | 371500 to 380500 | Low, Middle, High | 15MHz | QPSK | 1RB/ 0RB Offset |
| | | 372000 to 380000 | 372000 to 380000 | Low, Middle, High | 20MHz | QPSK | 1RB/ 0RB Offset |
| A | RADIATED EMISSION | 370500 to 381500 | 370500 to 381500 | Middle | 5MHz | QPSK | 1RB/ 0RB Offset |
| | | 371000 to 381000 | 371000 to 381000 | Middle | 10MHz | QPSK | 1RB/ 0RB Offset |
| | | 371500 to 380500 | 371500 to 380500 | Middle | 15MHz | QPSK | 1RB/ 0RB Offset |
| | | 372000 to 380000 | 372000 to 380000 | Middle | 20MHz | QPSK | 1RB/ 0RB Offset |

**Note:** 1.This device was tested under all bandwidths, RB configurations and modulations. The worst case was found in QPSK modulation.

2. n2 only supports NSA, and The test data presented in the report from worst NSA 12A_n2A

## 5G NR n5 MODE

| EUT CONFIGURE MODE | TEST ITEM | AVAILABLE CP-OFDM CHANNEL | AVAILABLE DFT-S-OFDM CHANNEL | TESTED CHANNEL | CHANNEL BANDWIDTH | MODULATION | MODE(DFT-S-OFDM) (INCLUDE CP-OFDM) |
|---|---|---|---|---|---|---|---|
| A | ERP | 165300 to 169300 | 165300 to 169300 | Low, Middle, High | 5MHz | QPSK | 1RB/ 0RB Offset |
| | | 165800 to 168800 | 165800 to 168800 | Low, Middle, High | 10MHz | QPSK | 1RB/ 0RB Offset |
| | | 166300 to 168300 | 166300 to 168300 | Low, Middle, High | 15MHz | QPSK | 1RB/ 0RB Offset |
| | | 166800 to 167800 | 166800 to 167800 | Low, Middle, High | 20MHz | Pi/2BPSK,QPSK,16QAM, 64QAM, 256QAM | 1RB/ 0RB Offset |
| B | FREQUENCY STABILITY | 166800 to 167800 | 166800 to 167800 | Low, Middle, High | 20MHz | QPSK | Outer_ Full |
| A | PEAK TO AVERAGE RATIO | 166800 to 167800 | 166800 to 167800 | Low, Middle, High | 20MHz | QPSK | 1RB/ 0RB Offset |
| | | | | | | | Outer_ Full |
| A | OCCUPIED BANDWIDTH | 165300 to 169300 | 165300 to 169300 | Middle | 5MHz | Pi/2BPSK,QPSK,16QAM, 64QAM, 256QAM | Outer_ Full |
| | | 165800 to 168800 | 165800 to 168800 | Middle | 10MHz | Pi/2BPSK,QPSK,16QAM, 64QAM, 256QAM | Outer_ Full |
| | | 166300 to 168300 | 166300 to 168300 | Middle | 15MHz | Pi/2BPSK,QPSK,16QAM, 64QAM, 256QAM | Outer_ Full |
| | | 166800 to 167800 | 166800 to 167800 | Middle | 20MHz | Pi/2BPSK,QPSK,16QAM, 64QAM, 256QAM | Outer_ Full |
| A | BAND EDGE | 165300 to 169300 | 165300 to 169300 | Low | 5MHz | QPSK | 1RB/ 0RB Offset |
| | | | | | | | Outer_ Full |
| | | | | High | 5MHz | QPSK | 1RB/ 24RB Offset |
| | | | | | | | Outer_ Full |
| | | 165800 to 168800 | 165800 to 168800 | Low | 10MHz | QPSK | 1RB/ 0RB Offset |
| | | | | | | | Outer_ Full |
| | | | | High | 10MHz | QPSK | 1RB/ 51RB Offset |
| | | | | | | | Outer_ Full |
| | | 166300 to 168300 | 166300 to 168300 | Low | 15MHz | QPSK | 1RB/ 78RB Offset |
| | | | | High | | | Outer_ Full |
| | | 166800 to 167800 | 166800 to 167800 | Low | 20MHz | QPSK | 1RB/ 0RB Offset |
| | | | | | | | Outer_ Full |
| | | | | High | 20MHz | QPSK | 1RB/ 105RB Offset |
| | | | | | | | Outer_ Full |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| A | CONDUCTED EMISSION | 165300 to 169300 | 165300 to 169300 | Low, Middle, High | 5MHz | QPSK | 1RB/ 0RB Offset |
| | | 165800 to 168800 | 165800 to 168800 | Low, Middle, High | 10MHz | QPSK | 1RB/ 0RB Offset |
| | | 166800 to 167800 | 166800 to 167800 | Low, Middle, High | 20MHz | QPSK | 1RB/ 0RB Offset |
| A | RADIATED EMISSION | 165300 to 169300 | 165300 to 169300 | Middle | 5MHz | QPSK | 1RB/ 0RB Offset |
| | | 165800 to 168800 | 165800 to 168800 | Middle, | 10MHz | QPSK | 1RB/ 0RB Offset |
| | | 166300 to 168300 | 166300 to 168300 | Middle, | 15MHz | QPSK | 1RB/ 0RB Offset |
| | | 166800 to 167800 | 166800 to 167800 | Middle, | 20MHz | QPSK | 1RB/ 0RB Offset |

**Note:** 1.This device was tested under all bandwidths, RB configurations and modulations. The worst case was found in QPSK modulation.

2. n5 only supports NSA, and The test data presented in the report from worst NSA 2A_n5A.

**5G NR n25 MODE**

| EUT CONFIGURE MODE | TEST ITEM | AVAILABLE CP-OFDM CHANNEL | AVAILABLE DFT-S-OFDM CHANNEL | TESTED CHANNEL | CHANNEL BANDWIDTH | MODULATION | MODE(DFT-S-OFDM) (INCLUDE CP-OFDM) |
|---|---|---|---|---|---|---|---|
| A | EIRP | 370500 to 382500 | 370500 to 382500 | Low, Middle, High | 5MHz | QPSK | 1RB/ 0RB Offset |
| | | 371000 to 382000 | 371000 to 382000 | Low, Middle, High | 10MHz | QPSK | 1RB/ 0RB Offset |
| | | 371500 to 381500 | 371500 to 381500 | Low, Middle, High | 15MHz | QPSK | 1RB/ 0RB Offset |
| | | 372000 to 381000 | 372000 to 381000 | Low, Middle, High | 20MHz | Pi/2BPSK,QPSK,16QAM, 64QAM, 256QAM | 1RB/ 0RB Offset |
| B | FREQUENCY STABILITY | 372000 to 381000 | 372000 to 381000 | Low, Middle, High | 20MHz | QPSK | Outer_ Full |
| A | PEAK TO AVERAGE RATIO | 372000 to 381000 | 372000 to 381000 | Low, Middle, High | 20MHz | QPSK | 1RB/ 0RB Offset |
| | | | | | | | Outer_ Full |
| A | OCCUPIED BANDWIDTH | 370500 to 382500 | 370500 to 382500 | Middle | 5MHz | Pi/2BPSK,QPSK,16QAM, 64QAM, 256QAM | Outer_ Full |
| | | 371000 to 382000 | 371000 to 382000 | Middle | 10MHz | Pi/2BPSK,QPSK,16QAM, 64QAM, 256QAM | Outer_ Full |
| | | 371500 to 381500 | 371500 to 381500 | Middle | 15MHz | Pi/2BPSK,QPSK,16QAM, 64QAM, 256QAM | Outer_ Full |
| | | 372000 to 381000 | 372000 to 381000 | Middle | 20MHz | Pi/2BPSK,QPSK,16QAM, 64QAM, 256QAM | Outer_ Full |
| A | BAND EDGE | 370500 to 382500 | 370500 to 382500 | Low | 5MHz | QPSK | 1RB/ 0RB Offset |
| | | | | | | | Outer_ Full |
| | | | | High | 5MHz | QPSK | 1RB/ 24 RB Offset |
| | | | | | | | Outer_ Full |
| | | 371000 to 382000 | 371000 to 382000 | Low | 10MHz | QPSK | 1RB/ 0RB Offset |
| | | | | | | | Outer_ Full |
| | | | | High | 10MHz | QPSK | 1RB/ 51 RB Offset |
| | | | | | | | Outer_ Full |
| | | 371500 to 381500 | 371500 to 381500 | Low | 15MHz | QPSK | 1RB/ 0RB Offset |
| | | | | | | | Outer_ Full |
| | | | | High | 15MHz | QPSK | 1RB/ 78 RB Offset |
| | | | | | | | Outer_ Full |
| | | 372000 to 381000 | 372000 to 381000 | Low | 20MHz | QPSK | 1RB/ 0RB Offset |
| | | | | | | | Outer_ Full |
| | | | | High | 20MHz | QPSK | 1RB/ 105 RB Offset |
| | | | | | | | Outer_ Full |
| A | CONDUCTED EMISSION | 370500 to 382500 | 370500 to 382500 | Low, Middle, High | 5MHz | QPSK | 1RB/ 0RB Offset |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| | | 371000 to 382000 | 371000 to 382000 | Low, Middle, High | 10MHz | QPSK | 1RB/ 0RB Offset |
| | | 371500 to 381500 | 371500 to 381500 | Low, Middle, High | 15MHz | QPSK | 1RB/ 0RB Offset |
| | | 372000 to 381000 | 372000 to 381000 | Low, Middle, High | 20MHz | QPSK | 1RB/ 0RB Offset |
| A | RADIATED EMISSION | 370500 to 382500 | 370500 to 382500 | Low, Middle, High | 5MHz | QPSK | 1RB/ 0RB Offset |
| | | 371000 to 382000 | 371000 to 382000 | Middle | 10MHz | QPSK | 1RB/ 0RB Offset |
| | | 371500 to 381500 | 371500 to 381500 | Middle | 15MHz | QPSK | 1RB/ 0RB Offset |
| | | 372000 to 381000 | 372000 to 381000 | Middle | 20MHz | QPSK | 1RB/ 0RB Offset |

**Note:** 1.This device was tested under all bandwidths, RB configurations and modulations. The worst case was found in QPSK modulation.

## 5G NR n41 MODE / 5G NR n41 HPUE MODE

| EUT CONFIGURE MODE | TEST ITEM | AVAILABLE CP-OFDM CHANNEL | AVAILABLE DFT-S-OFDM CHANNEL | TESTED CHANNEL | CHANNEL BANDWIDTH | MODULATION | MODE(DFT-S-OFDM) (INCLUDE CP-OFDM) |
|---|---|---|---|---|---|---|---|
| A | EIRP | 501204 to 535998 | 501204 to 535998 | Low, Middle, High | 20MHz | QPSK, | 1RB/ 0RB Offset |
| | | 502200 to 534996 | 502200 to 534996 | Low, Middle, High | 30MHz | QPSK | 1RB/ 0RB Offset |
| | | 503202 to 534000 | 503202 to 534000 | Low, Middle, High | 40MHz | QPSK | 1RB/ 0RB Offset |
| | | 504200 to 532998 | 504200 to 532998 | Low, Middle, High | 50MHz | QPSK | 1RB/ 0RB Offset |
| | | 505200 to 531996 | 505200 to 531996 | Low, Middle, High | 60MHz | QPSK | 1RB/ 0RB Offset |
| | | 507204 to 529998 | 507204 to 529998 | Low, Middle, High | 80MHz | QPSK | 1RB/ 0RB Offset |
| | | 508200 to 528996 | 508200 to 528996 | Low, Middle, High | 90MHz | QPSK | 1RB/ 0RB Offset |
| | | 509202 to 528000 | 509202 to 528000 | Low, Middle, High | 100MHz | Pi/2BPSK,QPSK,16QAM, 64QAM, 256QAM | 1RB/ 0RB Offset |
| B | FREQUENCY STABILITY | 501204 to 535998 | 501204 to 535998 | Low, Middle, High | 20MHz | QPSK | Outer_ Full |
| A | PEAK TO AVERAGE RATIO | 501204 to 535998 | 501204 to 535998 | Low, Middle, High | 20MHz | QPSK | 1RB/ 0RB Offset |
| | | | | | | | Outer_ Full |
| A | OCCUPIED BANDWIDTH | 501204 to 535998 | 501204 to 535998 | Middle | 20MHz | Pi/2BPSK,QPSK,16QAM, 64QAM, 256QAM | Outer_ Full |
| | | 502200 to 534996 | 502200 to 534996 | Middle | 30MHz | Pi/2BPSK,QPSK,16QAM, 64QAM, 256QAM | Outer_ Full |
| | | 503202 to 534000 | 503202 to 534000 | Middle | 40MHz | Pi/2BPSK,QPSK,16QAM, 64QAM, 256QAM | Outer_ Full |
| | | 504200 to 532998 | 504200 to 532998 | Middle | 50MHz | Pi/2BPSK,QPSK,16QAM, 64QAM, 256QAM | Outer_ Full |
| | | 505200 to 531996 | 505200 to 531996 | Middle | 60MHz | Pi/2BPSK,QPSK,16QAM, 64QAM, 256QAM | Outer_ Full |
| | | 507204 to 529998 | 507204 to 529998 | Middle | 80MHz | Pi/2BPSK,QPSK,16QAM, 64QAM, 256QAM | Outer_ Full |
| | | 508200 to 528996 | 508200 to 528996 | Middle | 90MHz | Pi/2BPSK,QPSK,16QAM, 64QAM, 256QAM | Outer_ Full |
| | | 509202 to 528000 | 509202 to 528000 | Middle | 100MHz | Pi/2BPSK,QPSK,16QAM, 64QAM, 256QAM | Outer_ Full |
| A | BAND EDGE | 501204 to 535998 | 501204 to 535998 | Low | 20MHz | QPSK | 1RB/ 0RB Offset |
| | | | | | | | Outer_ Full |
| | | | | High | 20MHz | QPSK | 1RB/ 50RB Offset |
| | | | | | | | Outer_ Full |
| | | 505200 to 531996 | 505200 to 531996 | Low | 60MHz | QPSK | 1RB/ 0RB Offset |
| | | | | | | | Outer_ Full |
| | | | | High | 60MHz | QPSK | 1RB/ 161RB Offset |
| | | | | | | | Outer_ Full |
| | | 509202 to 528000 | 509202 to 528000 | Low | 100MHz | QPSK | 1RB/ 0RB Offset |
| | | | | | | | Outer_ Full |
| | | | | High | 100MHz | QPSK | 1RB/ 272RB Offset |
| | | | | | | | Outer_ Full |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| A | CONDUCTED EMISSION | 501204 to 535998 | 501204 to 535998 | Low, Middle, High | 20MHz | QPSK | 1RB/ 0RB Offset |
| | | 505200 to 531996 | 505200 to 531996 | Low, Middle, High | 60MHz | QPSK | 1RB/ 0RB Offset |
| | | 509202 to 528000 | 509202 to 528000 | Low, Middle, High | 100MHz | QPSK | 1RB/ 0RB Offset |
| A | RADIATED EMISSION | 501204 to 535998 | 501204 to 535998 | Middle | 20MHz | QPSK | 1RB/ 0RB Offset |
| | | 502200 to 534996 | 502200 to 534996 | Low, Middle, High | 30MHz | QPSK | 1RB/ 0RB Offset |
| | | 503202 to 534000 | 503202 to 534000 | Middle | 40MHz | QPSK | 1RB/ 0RB Offset |
| | | 504200 to 532998 | 504200 to 532998 | Middle | 50MHz | QPSK | 1RB/ 0RB Offset |
| | | 505200 to 531996 | 505200 to 531996 | Middle | 60MHz | QPSK | 1RB/ 0RB Offset |
| | | 507204 to 529998 | 507204 to 529998 | Low, Middle, High | 80MHz | QPSK | 1RB/ 0RB Offset |
| | | 508200 to 528996 | 508200 to 528996 | Middle | 90MHz | QPSK | 1RB/ 0RB Offset |
| | | 509202 to 528000 | 509202 to 528000 | Middle | 100MHz | QPSK | 1RB/ 0RB Offset |

**Note: 1.**This device was tested under all bandwidths, RB configurations and modulations. The worst case was found in QPSK modulation.

2. For UL_mimo tests, Only supported CP modulation, and 10*Log (2)dBm has been added to the test plot.

## 5G NR n66 MODE

| EUT CONFIGURE MODE | TEST ITEM | AVAILABLE CP-OFDM CHANNEL | AVAILABLE DFT-S-OFDM CHANNEL | TESTED CHANNEL | CHANNEL BANDWIDTH | MODULATION | MODE(DFT-S-OFDM) (INCLUDE CP-OFDM) |
|---|---|---|---|---|---|---|---|
| A | EIRP | 342500 to 355500 | 342500 to 355500 | Low, Middle, High | 5MHz | QPSK | 1RB/ 0RB Offset |
| | | 343000 to 355000 | 343000 to 355000 | Low, Middle, High | 10MHz | QPSK | 1RB/ 0RB Offset |
| | | 343500 to 354500 | 343500 to 354500 | Low, Middle, High | 15MHz | QPSK | 1RB/ 0RB Offset |
| | | 344000 to 354000 | 344000 to 354000 | Low, Middle, High | 20MHz | QPSK | 1RB/ 0RB Offset |
| | | 345000 to 353000 | 345000 to 353000 | Low, Middle, High | 30MHz | Pi/2BPSK,QPSK,16QAM, 64QAM, 256QAM | 1RB/ 0RB Offset |
| B | FREQUENCY STABILITY | 344000 to 354000 | 344000 to 354000 | Low, Middle, High | 20MHz | QPSK | Outer_ Full |
| A | PEAK TO AVERAGE RATIO | 346000 to 352000 | 346000 to 352000 | Low, Middle, High | 20MHz | QPSK | 1RB/ 0RB Offset |
| | | | | | | | Outer_ Full |
| A | OCCUPIED BANDWIDTH | 342500 to 355500 | 342500 to 355500 | Middle | 5MHz | Pi/2BPSK,QPSK,16QAM, 64QAM, 256QAM | Outer_ Full |
| | | 343000 to 355000 | 343000 to 355000 | Middle | 10MHz | Pi/2BPSK,QPSK,16QAM, 64QAM, 256QAM | Outer_ Full |
| | | 343500 to 354500 | 343500 to 354500 | Middle | 15MHz | Pi/2BPSK,QPSK,16QAM, 64QAM, 256QAM | Outer_ Full |
| | | 344000 to 354000 | 344000 to 354000 | Middle | 20MHz | Pi/2BPSK,QPSK,16QAM, 64QAM, 256QAM | Outer_ Full |
| | | 345000 to 353000 | 345000 to 353000 | Middle | 30MHz | Pi/2BPSK,QPSK,16QAM, 64QAM, 256QAM | Outer_ Full |
| A | BAND EDGE | 342500 to 355500 | 342500 to 355500 | Low | 5MHz | QPSK | 1RB/ 0RB Offset |
| | | | | | | | Outer_ Full |
| | | | | High | 5MHz | QPSK | 1RB/ 24RB Offset |
| | | | | | | | Outer_ Full |
| | | 343500 to 354500 | 343500 to 354500 | Low | 15MHz | QPSK | 1RB/ 0RB Offset |
| | | | | | | | Outer_ Full |
| | | | | High | 15MHz | QPSK | 1RB/ 78RB Offset |
| | | | | | | | Outer_ Full |
| | | 345000 to 353000 | 345000 to 353000 | Low | 30MHz | QPSK | 1RB/ 0RB Offset |
| | | | | | | | Outer_ Full |
| | | | | High | 30MHz | QPSK | 1RB/ 159RB Offset |
| | | | | | | | Outer_ Full |
| A | CONDUCTED EMISSION | 342500 to 355500 | 342500 to 355500 | Low, Middle, High | 5MHz | QPSK | 1RB/ 0RB Offset |
| | | 343500 to 354500 | 343500 to 354500 | Low, Middle, High | 15MHz | QPSK | 1RB/ 0RB Offset |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| | | 345000 to 353000 | 345000 to 353000 | Low, Middle, High | 30MHz | QPSK | 1RB/ 0RB Offset |
| A | RADIATED EMISSION | 342500 to 355500 | 342500 to 355500 | Middle | 5MHz | QPSK | 1RB/ 0RB Offset |
| | | 343000 to 355000 | 343000 to 355000 | Middle | 10MHz | QPSK | 1RB/ 0RB Offset |
| | | 343500 to 354500 | 343500 to 354500 | Middle | 15MHz | QPSK | 1RB/ 0RB Offset |
| | | 344000 to 354000 | 344000 to 354000 | Middle | 20MHz | QPSK | 1RB/ 0RB Offset |
| | | 345000 to 353000 | 345000 to 353000 | Low, Middle, High | 30MHz | QPSK | 1RB/ 0RB Offset |

**Note:** 1.This device was tested under all bandwidths, RB configurations and modulations. The worst case was found in QPSK modulation.

2.The test data presented in the report from worst SA_n66.

## 5G NR n71 MODE

| EUT CONFIGURE MODE | TESWT ITEM | AVAILABLE CP-OFDM CHANNEL | AVAILABLE DFT-S-OFDM CHANNEL | TESTED CHANNEL | CHANNEL BANDWIDTH | MODULATION | MODE(DFT-S-OFDM) (INCLUDE CP-OFDM) |
|---|---|---|---|---|---|---|---|
| A | ERP | 133100 to 139100 | 133100 to 139100 | Low, Middle, High | 5MHz | QPSK | 1RB/ 0RB Offset |
| | | 133600 to 138600 | 133600 to 138600 | Low, Middle, High | 10MHz | QPSK | 1RB/ 0RB Offset |
| | | 134100 to 138100 | 134100 to 138100 | Low, Middle, High | 15MHz | QPSK | 1RB/ 0RB Offset |
| | | 134600 to 137600 | 134600 to 137600 | Low, Middle, High | 20MHz | Pi/2BPSK,QPSK,16QAM, 64QAM, 256QAM | 1RB/ 0RB Offset |
| B | FREQUENCY STABILITY | 134600 to 137600 | 134600 to 137600 | Middle | 20MHz | QPSK | Outer_ Full |
| A | PEAK TO AVERAGE RATIO | 134600 to 137600 | 134600 to 137600 | Low, Middle, High | 20MHz | QPSK | 1RB/ 0RB Offset |
| | | | | | | | Outer_ Full |
| A | OCCUPIED BANDWIDTH | 133100 to 139100 | 133100 to 139100 | Middle | 5MHz | Pi/2BPSK,QPSK,16QAM, 64QAM, 256QAM | Outer_ Full |
| | | 133600 to 138600 | 133600 to 138600 | Middle | 10MHz | Pi/2BPSK,QPSK,16QAM, 64QAM, 256QAM | Outer_ Full |
| | | 134100 to 138100 | 134100 to 138100 | Middle | 15MHz | Pi/2BPSK,QPSK, 16QAM, 64QAM, 256QAM | Outer_ Full |
| | | 134600 to 137600 | 134600 to 137600 | Middle | 20MHz | Pi/2BPSK,QPSK, 16QAM, 64QAM, 256QAM | Outer_ Full |
| A | BAND EDGE | 133100 to 139100 | 133100 to 139100 | Low | 5MHz | QPSK | 1RB/ 0RB Offset |
| | | | | | | | 1RB/ 24RB Offset |
| | | | | | | | Outer_ Full |
| | | | | High | 5MHz | QPSK | 1RB/ 0RB Offset |
| | | | | | | | 1RB/ 24RB Offset |
| | | | | | | | Outer_ Full |
| | | 133600 to 138600 | 133600 to 138600 | Low | 10MHz | QPSK | 1RB/ 0RB Offset |
| | | | | | | | 1RB/ 51RB Offset |
| | | | | | | | Outer_ Full |
| | | | | High | 10MHz | QPSK | 1RB/ 0RB Offset |
| | | | | | | | 1RB/ 51RB Offset |
| | | | | | | | Outer_ Full |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| | | 134600 to 137600 | 134600 to 137600 | Low | 20MHz | QPSK | 1RB/ 0RB Offset |
| | | | | | | | 1RB/ 99RB Offset |
| | | | | | | | Outer_ Full |
| | | | | High | 20MHz | QPSK | 1RB/ 0RB Offset |
| | | | | | | | 1RB/ 99RB Offset |
| | | | | | | | Outer_ Full |
| A | CONDUCTED EMISSION | 133100 to 139100 | 133100 to 139100 | Low, Middle, High | 5MHz | QPSK | 1RB/ 0RB Offset |
| | | 133600 to 138600 | 133600 to 138600 | Low, Middle, High | 10MHz | QPSK | 1RB/ 0RB Offset |
| | | 134600 to 137600 | 134600 to 137600 | Low, Middle, High | 20MHz | QPSK | 1RB/ 0RB Offset |
| A | RADIATED EMISSION | 133100 to 139100 | 133100 to 139100 | Middle | 5MHz | QPSK | 1RB/ 0RB Offset |
| | | 133600 to 138600 | 133600 to 138600 | Middle | 10MHz | QPSK | 1RB/ 0RB Offset |
| | | 134100 to 138100 | 134100 to 138100 | Middle | 15MHz | QPSK | 1RB/ 0RB Offset |
| | | 134600 to 137600 | 134600 to 137600 | Low, Middle, High | 20MHz | QPSK | 1RB/ 0RB Offset |

**Note:** 1.This device was tested under all bandwidths, RB configurations and modulations. The worst case was found in QPSK modulation.

## 5G NR n77 MODE / 5G NR n77 HPUE MODE

| EUT CONFIGURE MODE | TEST ITEM | AVAILABLE CP-OFDM CHANNEL | AVAILABLE DFT-S-OFDM CHANNEL | TESTED CHANNEL | CHANNEL BANDWIDTH | MODULATION | MODE(DFT-S-OFDM) (INCLUDE CP-OFDM) |
|---|---|---|---|---|---|---|---|
| A | EIRP | 647334 to 664666 | 647334 to 664666 | Low, Middle, High | 20MHz | QPSK | 1RB/ 0RB Offset |
| | | 647670 to 664332 | 647670 to 664332 | Low, Middle, High | 30MHz | QPSK | 1RB/ 0RB Offset |
| | | 648000 to 664000 | 648000 to 664000 | Low, Middle, High | 40MHz | QPSK | 1RB/ 0RB Offset |
| | | 648336 to 663666 | 648336 to 663666 | Low, Middle, High | 50MHz | QPSK | 1RB/ 0RB Offset |
| | | 648668 to 663332 | 648668 to 663332 | Low, Middle, High | 60MHz | QPSK | 1RB/ 0RB Offset |
| | | 649000 to 663000 | 649000 to 663000 | Middle | 70MHz | QPSK | 1RB/ 0RB Offset |
| | | 649334 to 662666 | 649334 to 662666 | Low, Middle, High | 80MHz | QPSK | 1RB/ 0RB Offset |
| | | 649668 to 662332 | 649668 to 662332 | Low, Middle, High | 90MHz | QPSK | 1RB/ 0RB Offset |
| | | 650000 to 662000 | 650000 to 662000 | Low, Middle, High | 100MHz | Pi/2BPSK,QPSK,16QAM, 64QAM, 256QAM | 1RB/ 0RB Offset |
| A | FREQUENCY STABILITY | 647334 to 664666 | 647334 to 664666 | Low, Middle, High | 20MHz | QPSK | Outer_ Full |
| A | PEAK TO AVERAGE RATIO | 647334 to 664666 | 647334 to 664666 | Low, Middle, High | 20MHz | QPSK | 1RB/ 0RB Offset |
| | | | | | | | Outer_ Full |
| A | OCCUPIED BANDWIDTH | 647334 to 664666 | 647334 to 664666 | Middle | 20MHz | Pi/2BPSK,QPSK,16QAM, 64QAM, 256QAM | Outer_ Full |
| | | 647670 to 664332 | 647670 to 664332 | Middle | 30MHz | Pi/2BPSK,QPSK,16QAM, 64QAM, 256QAM | Outer_ Full |
| | | 648000 to 664000 | 648000 to 664000 | Middle | 40MHz | Pi/2BPSK,QPSK,16QAM, 64QAM, 256QAM | Outer_ Full |
| | | 648336 to 663666 | 648336 to 663666 | Middle | 50MHz | Pi/2BPSK,QPSK,16QAM, 64QAM, 256QAM | Outer_ Full |
| | | 648668 to 663332 | 648668 to 663332 | Middle | 60MHz | Pi/2BPSK,QPSK,16QAM, 64QAM, 256QAM | Outer_ Full |
| | | 649000 to 663000 | 649000 to 663000 | Middle | 70MHz | Pi/2BPSK,QPSK,16QAM, 64QAM, 256QAM | Outer_ Full |
| | | 649334 to 662666 | 649334 to 662666 | Middle | 80MHz | Pi/2BPSK,QPSK,16QAM, 64QAM, 256QAM | Outer_ Full |
| | | 649668 to 662332 | 649668 to 662332 | Middle | 90MHz | Pi/2BPSK,QPSK,16QAM, 64QAM, 256QAM | Outer_ Full |
| | | 650000 to 662000 | 650000 to 662000 | Low, Middle, High | 100MHz | Pi/2BPSK,QPSK,16QAM, 64QAM, 256QAM | Outer_ Full |
| A | BAND EDGE | 647334 to 664666 | 647334 to 664666 | Low | 20MHz | QPSK | 1RB/ 0RB Offset |
| | | | | | | | Outer_ Full |
| | | | | High | 20MHz | QPSK | 1RB/ 50RB Offset |
| | | | | | | | Outer_ Full |
| | | 648668 to 663332 | 648668 to 663332 | Low | 60MHz | QPSK | 1RB/ 0RB Offset |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| | | | | | | | Outer_ Full |
| | | | | High | 60MHz | QPSK | 1RB/ 161RB Offset |
| | | | | | | | Outer_ Full |
| | | 650000 to 662000 | 650000 to 662000 | Low | 100MHz | QPSK | 1RB/ 0RB Offset |
| | | | | | | | Outer_ Full |
| | | | | High | 100MHz | QPSK | 1RB/ 272RB Offset |
| | | | | | | | Outer_ Full |
| A | CONDUCTED EMISSION | 647334 to 664666 | 647334 to 664666 | Low, Middle, High | 20MHz | QPSK | 1RB/ 0RB Offset |
| | | 648668 to 663332 | 648668 to 663332 | Low, Middle, High | 60MHz | QPSK | 1RB/ 0RB Offset |
| | | 650000 to 662000 | 650000 to 662000 | Low, Middle, High | 100MHz | QPSK | 1RB/ 0RB Offset |
| A | RADIATED EMISSION | 647334 to 664666 | 647334 to 664666 | Middle | 20MHz | QPSK | 1RB/ 0RB Offset |
| | | 647670 to 664332 | 647670 to 664332 | Middle | 30MHz | QPSK | 1RB/ 0RB Offset |
| | | 648000 to 664000 | 648000 to 664000 | Middle | 40MHz | QPSK | 1RB/ 0RB Offset |
| | | 648336 to 663666 | 648336 to 663666 | Middle | 50MHz | QPSK | 1RB/ 0RB Offset |
| | | 648668 to 663332 | 648668 to 663332 | Middle | 60MHz | QPSK | 1RB/ 0RB Offset |
| | | 649000 to 663000 | 649000 to 663000 | Middle | 70MHz | QPSK | 1RB/ 0RB Offset |
| | | 649334 to 662666 | 649334 to 662666 | Middle | 80MHz | QPSK | 1RB/ 0RB Offset |
| | | 649668 to 662332 | 649668 to 662332 | Low, Middle, High | 90MHz | QPSK | 1RB/ 0RB Offset |
| | | 650000 to 662000 | 650000 to 662000 | Low, Middle, High | 100MHz | QPSK | 1RB/ 0RB Offset |

**Note:** 1.This device was tested under all bandwidths, RB configurations and modulations. The worst case was found in QPSK modulation.

2. The test data presented in the report from worst SA_n77.

3. For UL_mimo tests, Only supported CP modulation, and 10*Log (2)dBm has been added to the test plot.

## TEST CONDITION:

| TEST ITEM | ENVIRONMENTAL CONDITIONS | INPUT POWER | TESTED BY |
|---|---|---|---|
| ERP&EIRP | 23deg. C, 70%RH | DC 14.0V | Jace Hu |
| FREQUENCY STABILITY | 23deg. C, 70%RH | DC 12V/14.0V/16V | James Fu |
| OCCUPIED BANDWIDTH | 23deg. C, 70%RH | DC 14.0V | James Fu |
| BAND EDGE | 23deg. C, 70%RH | DC 14.0V | James Fu |
| CONDUCTED EMISSION | 23deg. C, 70%RH | DC 14.0V | James Fu |
| RADIATED EMISSION | 23deg. C, 70%RH | DC 14.0V | Jace Hu |
| PEAK TO AVERAGE RATIO | 23deg. C, 70%RH | DC 14.0V | James Fu |

## 2.5 GENERAL DESCRIPTION OF APPLIED STANDARDS

The EUT is a RF product. According to the specifications of the manufacturer, it must comply with the requirements of the following standards:

**FCC 47 CFR Part 2**

**FCC 47 CFR Part 22/24/27**

**KDB 971168 D01 Power Meas License Digital Systems v03r01**

**ANSI/TIA/EIA-603-D**

**ANSI/TIA/EIA-603-E**

**ANSI C63.26-2015**

**NOTE:** All test items have been performed and recorded as per the above standards.

# 3 TEST TYPES AND RESULTS

## 3.1 OUTPUT POWER MEASUREMENT

### 3.1.1 LIMITS OF OUTPUT POWER MEASUREMENT

Mobile / Portable station is limited to 7 watts e.r.p. (n5)

Mobile and portable stations are limited to 2 watts EIRP. (n2/n25)

The radiated peak output power shall be according to the specific rule Part 27.50(h)(2) that “User stations are limited to 2 watts” and 27.50(i) specific that “Peak transmit power must be measure over any interval of continuous transmission using instrumentation calibration in terms of rms-equivalent voltage.( n41)”

Fixed, mobile, and portable (hand-held) stations operating in the 1710-1755 MHz band and mobile and portable stations operating in the 1695-1710 MHz and 1755-1780 MHz bands are limited to 1 watts EIRP(n66)

According to the specific rule 27.50(c)(10) Fixed, mobile, and Portable stations (hand-held devices) transmitting in the 698-746 MHz bands are limited to 3 watts ERP(n71)

According to the specific rule Part 27.50(j)(4) and Part 27.50(k)(3) ,Mobile and portable stations are limited to 1 Watt EIRP. Mobile and portable stations operating in these bands must employ a means for limiting power to the minimum necessary for successful communications.(n77/n78)

## 3.1.2 TEST PROCEDURES

**EIRP / ERP MEASUREMENT:**

Per KDB 971168 D01 Power Meas License Digital Systems v03r01 or subclause 5.2.5.5 of ANSI C63.26-2015, the relevant equation for determing the ERP or EIRP from the conducted RF output power measured using the guidance provided above is:

$ERP \text{ or } EIRP = P_{Meas} + G_T - L_C$

Where:

ERP or EIRP = effective radiated power or equivalent isotropically radiated power, respectively (expressed in the same units as $P_{Meas}$, typically dBW or dBm);

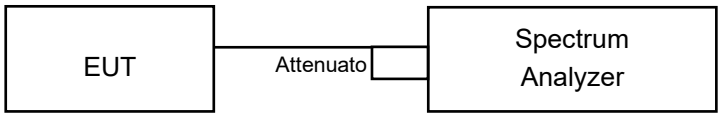
$P_{Meas}$ = measured transmitter output power or PSD, in dBm or dBW;

$G_T$ = gain of the transmitting antenna, in dBd (ERP) or dBi (EIRP);

$L_C$ = signal attenuation in the connecting cable between the transmitter and antenna, in dB.

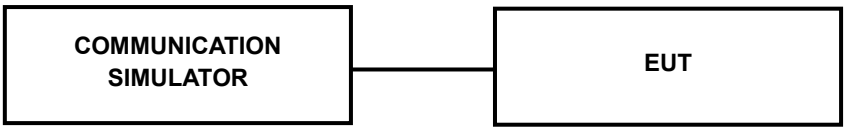
**CONDUCTED POWER MEASUREMENT:**

a. The EUT was set up for the maximum power with LTE link data modulation and link up with simulator.
b. Set the EUT to transmit under low, middle and high channel and record the power level shown on simulator.



## 3.1.3 TEST SETUP

**CONDUCTED POWER MEASUREMENT:**




1. Connect the DUT transmitter output to the spectrum analyzer via coaxial cable while ensuring proper impedance matching.
2. Time the analyzer to the nominal center frequency of the emission bandwidth (EBW).
3. Set the span to twice the nominal EBW (span = 2 x EBW).
4. Set the resolution bandwidth (RBW) to approximately 1% of EBW.
5. Set the video bandwidth (VBW) to ≧ 3 x RBW.
6. Select the average power (RMS) display detector.
7. Set the number of measurement points to ≧1001.
8. Use auto-coupled sweep time.
9. Perform measurement over an interval of time when the transmission is continuous and at its maximum power level.
10. Utilize trace averaging over 100 traces in the power averaging mode.
11. Use the Band/Channel Power function to determine the integrated power over the full EBW.
12. Record the band power level.
13. Adjust the recorded level by applying appropriate correction factors for the measurement set-up.
14. Determine the EIRP by adding the effective antenna gain to the adjusted power level.

For the actual test configuration, please refer to the attached file (Test Setup Photo).

## 3.1.4 TEST RESULTS

**CONDUCTED OUTPUT POWER (dBm)**

**5G SISO**
**ANT 1**
**N2**

| n2 (SCS 15 kHz) | | | | | | |
|---|---|---|---|---|---|---|
| BW | MCS Index | RB Size | RB Offset | Low | Mid | High |
| | | Channel | | 372000 | 376000 | 380000 |
| | | Frequence (MHz) | | 1860 | 1880 | 1900 |
| 20M | DFT-s-OFDM Pi/2 BPSK | 1 | 0 | 22.40 | 22.66 | 22.61 |
| | | 1 | 105 | 22.44 | 22.51 | 22.43 |
| | | 2 | 0 | 22.29 | 22.68 | 22.41 |
| | | 2 | 104 | 22.25 | 22.62 | 22.25 |
| | | 100 | 0 | 22.30 | 22.66 | 22.36 |
| | | 1 | 1 | 22.92 | 23.08 | 22.88 |
| | | 1 | 104 | 22.88 | 23.04 | 22.79 |
| | | 50 | 25 | 22.72 | 23.22 | 22.93 |
| | DFT-s-OFDM QPSK | 1 | 0 | 22.01 | 22.04 | 22.04 |
| | | 1 | 105 | 22.13 | 22.05 | 21.97 |
| | | 2 | 0 | 22.07 | 22.01 | 21.91 |
| | | 2 | 104 | 21.93 | 22.01 | 21.90 |
| | | 100 | 0 | 21.73 | 21.74 | 21.65 |
| | | 1 | 1 | 22.67 | 23.12 | 22.68 |
| | | 1 | 104 | 22.61 | 23.07 | 22.73 |
| | | 50 | 25 | 22.80 | **23.35** | 22.91 |
| | DFT-s-OFDM 16QAM | 1 | 0 | 21.05 | 21.08 | 21.06 |
| | | 1 | 105 | 21.17 | 21.01 | 21.04 |
| | | 2 | 0 | 21.04 | 20.99 | 20.88 |
| | | 2 | 104 | 20.99 | 20.99 | 21.04 |
| | | 100 | 0 | 20.97 | 20.87 | 20.83 |
| | | 1 | 1 | 22.02 | 22.26 | 22.21 |
| | | 1 | 104 | 22.26 | 22.21 | 22.10 |
| | | 50 | 25 | 22.11 | 22.37 | 22.07 |
| | DFT-s-OFDM 64QAM | 1 | 0 | 20.36 | 20.37 | 20.39 |
| | | 1 | 105 | 20.35 | 20.38 | 20.46 |
| | | 2 | 0 | 20.23 | 20.29 | 20.26 |
| | | 2 | 104 | 20.21 | 20.26 | 20.23 |
| | | 100 | 0 | 20.37 | 20.53 | 20.29 |
| | | 1 | 1 | 20.42 | 20.49 | 20.22 |

| | | | | | | |
|---|---|---|---|---|---|---|
| | | 1 | 104 | 20.37 | 20.52 | 20.20 |
| | | 50 | 25 | 20.37 | 20.42 | 20.57 |
| | DFT-s-OFDM 256QAM | 1 | 0 | 18.56 | 18.59 | 18.50 |
| | | 1 | 105 | 18.44 | 18.54 | 18.52 |
| | | 2 | 0 | 18.52 | 18.52 | 18.49 |
| | | 2 | 104 | 18.47 | 18.40 | 18.45 |
| | | 100 | 0 | 18.35 | 18.36 | 18.35 |
| | | 1 | 1 | 18.50 | 18.49 | 18.66 |
| | | 1 | 104 | 18.47 | 18.52 | 18.44 |
| | | 50 | 25 | 18.44 | 18.49 | 18.55 |

| BW | MCS Index | RB Size | RB Offset | Low | Mid | High |
|---|---|---|---|---|---|---|
| | | Channel | | 371500 | 376000 | 380500 |
| | | Frequence (MHz) | | 1857.5 | 1880 | 1902.5 |
| 15M | DFT-s-OFDM Pi/2 BPSK | 1 | 0 | 22.31 | 22.65 | 22.48 |
| | | 1 | 78 | 22.32 | 22.45 | 22.36 |
| | | 2 | 0 | 22.24 | 22.65 | 22.29 |
| | | 2 | 77 | 22.20 | 22.49 | 22.14 |
| | | 75 | 0 | 22.19 | 22.51 | 22.34 |
| | | 1 | 1 | 22.66 | 23.02 | 22.63 |
| | | 1 | 77 | 22.60 | 22.99 | 22.70 |
| | | 36 | 18 | 22.66 | 23.20 | 22.84 |
| | DFT-s-OFDM QPSK | 1 | 0 | 21.93 | 21.93 | 22.03 |
| | | 1 | 78 | 22.02 | 21.99 | 21.88 |
| | | 2 | 0 | 22.00 | 21.99 | 21.88 |
| | | 2 | 77 | 21.78 | 21.93 | 21.83 |
| | | 75 | 0 | 21.58 | 21.64 | 21.50 |
| | | 1 | 1 | 22.87 | 23.04 | 22.85 |
| | | 1 | 77 | 22.87 | 22.92 | 22.74 |
| | | 36 | 18 | 22.65 | 23.20 | 22.87 |
| | DFT-s-OFDM 16QAM | 1 | 0 | 20.91 | 21.04 | 20.93 |
| | | 1 | 78 | 21.04 | 20.96 | 20.97 |
| | | 2 | 0 | 20.93 | 20.98 | 20.82 |
| | | 2 | 77 | 20.87 | 20.98 | 21.01 |
| | | 75 | 0 | 20.94 | 20.85 | 20.80 |
| | | 1 | 1 | 21.90 | 22.16 | 22.11 |
| | | 1 | 77 | 22.23 | 22.18 | 22.06 |
| | | 36 | 18 | 22.08 | 22.29 | 21.96 |
| | DFT-s-OFDM 64QAM | 1 | 0 | 20.25 | 20.30 | 20.33 |
| | | 1 | 78 | 20.34 | 20.36 | 20.44 |
| | | 2 | 0 | 20.20 | 20.19 | 20.24 |

| | | | | | | |
|---|---|---|---|---|---|---|
| | | 2 | 77 | 20.19 | 20.20 | 20.15 |
| | | 75 | 0 | 20.30 | 20.51 | 20.23 |
| | | 1 | 1 | 20.38 | 20.47 | 20.13 |
| | | 1 | 77 | 20.36 | 20.42 | 20.10 |
| | | 36 | 18 | 20.33 | 20.36 | 20.45 |
| | DFT-s-OFDM 256QAM | 1 | 0 | 18.55 | 18.45 | 18.38 |
| | | 1 | 78 | 18.43 | 18.48 | 18.44 |
| | | 2 | 0 | 18.46 | 18.47 | 18.45 |
| | | 2 | 77 | 18.45 | 18.38 | 18.43 |
| | | 75 | 0 | 18.22 | 18.24 | 18.30 |
| | | 1 | 1 | 18.46 | 18.46 | 18.60 |
| | | 1 | 77 | 18.35 | 18.40 | 18.41 |
| | | 36 | 18 | 18.39 | 18.36 | 18.53 |

| BW | MCS Index | RB Size | RB Offset | Low | Mid | High |
|---|---|---|---|---|---|---|
| | | Channel | | 371000 | 376000 | 381000 |
| | | Frequence (MHz) | | 1855 | 1880 | 1905 |
| 10M | DFT-s-OFDM Pi/2 BPSK | 1 | 0 | 22.30 | 22.55 | 22.54 |
| | | 1 | 51 | 22.39 | 22.49 | 22.40 |
| | | 2 | 0 | 22.18 | 22.60 | 22.31 |
| | | 2 | 50 | 22.16 | 22.53 | 22.12 |
| | | 50 | 0 | 22.25 | 22.59 | 22.34 |
| | | 1 | 1 | 22.62 | 23.05 | 22.61 |
| | | 1 | 50 | 22.55 | 22.99 | 22.62 |
| | | 25 | 12 | 22.66 | 23.25 | 22.90 |
| | DFT-s-OFDM QPSK | 1 | 0 | 21.94 | 21.95 | 21.94 |
| | | 1 | 51 | 22.08 | 22.04 | 21.89 |
| | | 2 | 0 | 21.92 | 21.99 | 21.84 |
| | | 2 | 50 | 21.90 | 21.95 | 21.89 |
| | | 50 | 0 | 21.68 | 21.69 | 21.52 |
| | | 1 | 1 | 22.90 | 22.97 | 22.74 |
| | | 1 | 50 | 22.77 | 22.97 | 22.68 |
| | | 25 | 12 | 22.71 | 23.20 | 22.90 |
| | DFT-s-OFDM 16QAM | 1 | 0 | 21.01 | 21.05 | 20.96 |
| | | 1 | 51 | 21.07 | 20.94 | 20.91 |
| | | 2 | 0 | 21.00 | 20.96 | 20.74 |
| | | 2 | 50 | 20.96 | 20.85 | 20.99 |
| | | 50 | 0 | 20.92 | 20.80 | 20.75 |
| | | 1 | 1 | 21.94 | 22.24 | 22.07 |
| | | 1 | 50 | 22.19 | 22.18 | 21.96 |
| | | 25 | 12 | 22.01 | 22.24 | 21.99 |

| | | | | | | |
|---|---|---|---|---|---|---|
| | DFT-s-OFDM 64QAM | 1 | 0 | 20.30 | 20.28 | 20.32 |
| | | 1 | 51 | 20.23 | 20.35 | 20.45 |
| | | 2 | 0 | 20.17 | 20.21 | 20.20 |
| | | 2 | 50 | 20.18 | 20.22 | 20.12 |
| | | 50 | 0 | 20.33 | 20.51 | 20.27 |
| | | 1 | 1 | 20.41 | 20.34 | 20.19 |
| | | 1 | 50 | 20.35 | 20.44 | 20.06 |
| | | 25 | 12 | 20.27 | 20.34 | 20.54 |
| | DFT-s-OFDM 256QAM | 1 | 0 | 18.49 | 18.54 | 18.41 |
| | | 1 | 51 | 18.40 | 18.42 | 18.39 |
| | | 2 | 0 | 18.37 | 18.41 | 18.45 |
| | | 2 | 50 | 18.46 | 18.35 | 18.44 |
| | | 50 | 0 | 18.33 | 18.28 | 18.30 |
| | | 1 | 1 | 18.40 | 18.47 | 18.52 |
| | | 1 | 50 | 18.45 | 18.49 | 18.43 |
| | | 25 | 12 | 18.40 | 18.39 | 18.46 |

| BW | MCS Index | Channel | | 370500 | 376000 | 381500 |
|---|---|---|---|---|---|---|
| | | Frequence (MHz) | | 1852.5 | 1880 | 1907.5 |
| 5M | DFT-s-OFDM Pi/2 BPSK | 1 | 0 | 22.35 | 22.55 | 22.48 |
| | | 1 | 24 | 22.36 | 22.37 | 22.28 |
| | | 2 | 0 | 22.25 | 22.57 | 22.26 |
| | | 2 | 23 | 22.14 | 22.58 | 22.17 |
| | | 25 | 0 | 22.15 | 22.63 | 22.33 |
| | | 1 | 1 | 22.54 | 23.01 | 22.57 |
| | | 1 | 23 | 22.47 | 23.04 | 22.68 |
| | | 12 | 6 | 22.78 | 23.20 | 22.76 |
| | DFT-s-OFDM QPSK | 1 | 0 | 22.00 | 21.99 | 21.95 |
| | | 1 | 24 | 22.00 | 21.91 | 21.91 |
| | | 2 | 0 | 22.00 | 21.97 | 21.80 |
| | | 2 | 23 | 21.90 | 21.94 | 21.84 |
| | | 25 | 0 | 21.70 | 21.64 | 21.51 |
| | | 1 | 1 | 22.90 | 22.98 | 22.74 |
| | | 1 | 23 | 22.79 | 22.99 | 22.67 |
| | | 12 | 6 | 22.62 | 23.21 | 22.90 |
| | DFT-s-OFDM 16QAM | 1 | 0 | 20.98 | 21.07 | 21.00 |
| | | 1 | 24 | 21.12 | 20.88 | 20.92 |
| | | 2 | 0 | 20.94 | 20.94 | 20.76 |
| | | 2 | 23 | 20.90 | 20.97 | 20.90 |
| | | 25 | 0 | 20.88 | 20.81 | 20.68 |
| | | 1 | 1 | 21.88 | 22.11 | 22.16 |

| | | | | | | |
|---|---|---|---|---|---|---|
| | | 1 | 23 | 22.23 | 22.10 | 22.04 |
| | | 12 | 6 | 22.05 | 22.26 | 22.04 |
| | DFT-s-OFDM 64QAM | 1 | 0 | 20.22 | 20.24 | 20.35 |
| | | 1 | 24 | 20.24 | 20.34 | 20.39 |
| | | 2 | 0 | 20.12 | 20.20 | 20.23 |
| | | 2 | 23 | 20.14 | 20.21 | 20.20 |
| | | 25 | 0 | 20.33 | 20.40 | 20.15 |
| | | 1 | 1 | 20.38 | 20.35 | 20.07 |
| | | 1 | 23 | 20.30 | 20.43 | 20.18 |
| | | 12 | 6 | 20.35 | 20.39 | 20.47 |
| | DFT-s-OFDM 256QAM | 1 | 0 | 18.54 | 18.48 | 18.44 |
| | | 1 | 24 | 18.42 | 18.52 | 18.47 |
| | | 2 | 0 | 18.38 | 18.50 | 18.34 |
| | | 2 | 23 | 18.45 | 18.25 | 18.43 |
| | | 25 | 0 | 18.26 | 18.29 | 18.27 |
| | | 1 | 1 | 18.46 | 18.35 | 18.61 |
| | | 1 | 23 | 18.45 | 18.41 | 18.39 |
| | | 12 | 6 | 18.40 | 18.46 | 18.46 |

**N5**

| n5 (SCS 15 kHz) | | | | | | |
|---|---|---|---|---|---|---|
| BW | MCS Index | RB Size | RB Offset | Low | Mid | High |
| | | Channel | | 166800 | 167300 | 167800 |
| | | Frequence (MHz) | | 834 | 836.5 | 839 |
| 20M | DFT-s-OFDM Pi/2 BPSK | 1 | 0 | 22.41 | 22.32 | 22.48 |
| | | 1 | 105 | 22.54 | 22.48 | 22.67 |
| | | 2 | 0 | 22.53 | 22.47 | 22.58 |
| | | 2 | 104 | 22.65 | 22.57 | 22.65 |
| | | 100 | 0 | 22.59 | 22.52 | 22.72 |
| | | 1 | 1 | 22.95 | 22.78 | 22.93 |
| | | 1 | 104 | 23.29 | 23.23 | 23.21 |
| | | 50 | 25 | 23.19 | 23.04 | 23.12 |
| | DFT-s-OFDM QPSK | 1 | 0 | 22.05 | 21.92 | 22.08 |
| | | 1 | 105 | 22.43 | 22.38 | 22.37 |
| | | 2 | 0 | 22.12 | 22.17 | 22.18 |
| | | 2 | 104 | 22.32 | 22.34 | 22.40 |
| | | 100 | 0 | 22.16 | 22.08 | 22.14 |
| | | 1 | 1 | 22.95 | 22.87 | 23.05 |
| | | 1 | 104 | 23.20 | 23.11 | **23.34** |
| | | 50 | 25 | 23.20 | 23.22 | 23.22 |
| | DFT-s-OFDM 16QAM | 1 | 0 | 20.72 | 20.76 | 20.78 |
| | | 1 | 105 | 21.11 | 21.07 | 21.15 |
| | | 2 | 0 | 20.89 | 20.89 | 20.96 |
| | | 2 | 104 | 21.21 | 21.21 | 21.25 |
| | | 100 | 0 | 21.24 | 21.18 | 21.16 |
| | | 1 | 1 | 21.83 | 21.86 | 21.96 |
| | | 1 | 104 | 22.38 | 22.32 | 22.40 |
| | | 50 | 25 | 22.22 | 22.06 | 22.23 |
| | DFT-s-OFDM 64QAM | 1 | 0 | 20.57 | 20.54 | 20.55 |
| | | 1 | 105 | 20.98 | 20.89 | 21.02 |
| | | 2 | 0 | 20.51 | 20.42 | 20.51 |
| | | 2 | 104 | 20.76 | 20.68 | 20.76 |
| | | 100 | 0 | 20.71 | 20.67 | 20.63 |
| | | 1 | 1 | 20.58 | 20.38 | 20.48 |
| | | 1 | 104 | 21.07 | 20.99 | 21.06 |
| | | 50 | 25 | 20.63 | 20.64 | 20.62 |
| | DFT-s-OFDM 256QAM | 1 | 0 | 18.57 | 18.58 | 18.63 |
| | | 1 | 105 | 18.63 | 18.48 | 18.56 |
| | | 2 | 0 | 18.70 | 18.54 | 18.65 |

| | | | | | | |
|---|---|---|---|---|---|---|
| | | 2 | 104 | 18.59 | 18.49 | 18.62 |
| | | 100 | 0 | 18.28 | 18.25 | 18.43 |
| | | 1 | 1 | 18.59 | 18.58 | 18.65 |
| | | 1 | 104 | 18.50 | 18.43 | 18.51 |
| | | 50 | 25 | 18.31 | 18.33 | 18.37 |

| BW | MCS Index | Channel | | 166300 | 167300 | 168300 |
|---|---|---|---|---|---|---|
| | | Frequence (MHz) | | 831.5 | 836.5 | 841.5 |
| 15M | DFT-s-OFDM Pi/2 BPSK | 1 | 0 | 22.29 | 22.18 | 22.45 |
| | | 1 | 78 | 22.51 | 22.42 | 22.62 |
| | | 2 | 0 | 22.45 | 22.37 | 22.49 |
| | | 2 | 77 | 22.64 | 22.45 | 22.58 |
| | | 75 | 0 | 22.46 | 22.39 | 22.64 |
| | | 1 | 1 | 22.88 | 22.72 | 22.97 |
| | | 1 | 77 | 23.18 | 23.00 | 23.20 |
| | | 36 | 18 | 23.15 | 23.09 | 23.11 |
| | DFT-s-OFDM QPSK | 1 | 0 | 22.04 | 21.90 | 22.04 |
| | | 1 | 78 | 22.42 | 22.28 | 22.27 |
| | | 2 | 0 | 22.09 | 22.06 | 22.05 |
| | | 2 | 77 | 22.26 | 22.23 | 22.34 |
| | | 75 | 0 | 22.10 | 21.95 | 21.99 |
| | | 1 | 1 | 22.87 | 22.65 | 22.86 |
| | | 1 | 77 | 23.27 | 23.12 | 23.10 |
| | | 36 | 18 | 23.17 | 23.03 | 23.01 |
| | DFT-s-OFDM 16QAM | 1 | 0 | 20.69 | 20.66 | 20.64 |
| | | 1 | 78 | 21.04 | 21.02 | 21.11 |
| | | 2 | 0 | 20.85 | 20.86 | 20.91 |
| | | 2 | 77 | 21.08 | 21.14 | 21.24 |
| | | 75 | 0 | 21.18 | 21.05 | 21.09 |
| | | 1 | 1 | 21.74 | 21.71 | 21.91 |
| | | 1 | 77 | 22.28 | 22.31 | 22.28 |
| | | 36 | 18 | 22.18 | 21.99 | 22.21 |
| | DFT-s-OFDM 64QAM | 1 | 0 | 20.51 | 20.44 | 20.52 |
| | | 1 | 78 | 20.90 | 20.82 | 21.01 |
| | | 2 | 0 | 20.44 | 20.28 | 20.48 |
| | | 2 | 77 | 20.70 | 20.59 | 20.72 |
| | | 75 | 0 | 20.64 | 20.66 | 20.60 |
| | | 1 | 1 | 20.49 | 20.33 | 20.44 |
| | | 1 | 77 | 20.92 | 20.93 | 20.94 |
| | | 36 | 18 | 20.53 | 20.50 | 20.54 |

| | | | | | | |
|---|---|---|---|---|---|---|
| | DFT-s-OFDM 256QAM | 1 | 0 | 18.55 | 18.53 | 18.54 |
| | | 1 | 78 | 18.61 | 18.38 | 18.46 |
| | | 2 | 0 | 18.55 | 18.42 | 18.53 |
| | | 2 | 77 | 18.47 | 18.46 | 18.47 |
| | | 75 | 0 | 18.22 | 18.19 | 18.34 |
| | | 1 | 1 | 18.50 | 18.49 | 18.56 |
| | | 1 | 77 | 18.38 | 18.35 | 18.48 |
| | | 36 | 18 | 18.19 | 18.27 | 18.27 |

| BW | MCS Index | Channel | | 165800 | 167300 | 168800 |
|---|---|---|---|---|---|---|
| | | Frequence (MHz) | | 829 | 836.5 | 844 |
| 10M | DFT-s-OFDM Pi/2 BPSK | 1 | 0 | 22.34 | 22.23 | 22.33 |
| | | 1 | 51 | 22.47 | 22.40 | 22.61 |
| | | 2 | 0 | 22.47 | 22.39 | 22.45 |
| | | 2 | 50 | 22.63 | 22.43 | 22.52 |
| | | 50 | 0 | 22.45 | 22.37 | 22.60 |
| | | 1 | 1 | 22.91 | 22.81 | 23.04 |
| | | 1 | 50 | 23.10 | 23.10 | 23.26 |
| | | 25 | 12 | 23.07 | 23.20 | 23.19 |
| | DFT-s-OFDM QPSK | 1 | 0 | 21.90 | 21.78 | 21.97 |
| | | 1 | 51 | 22.31 | 22.31 | 22.24 |
| | | 2 | 0 | 22.08 | 22.08 | 22.09 |
| | | 2 | 50 | 22.28 | 22.30 | 22.25 |
| | | 50 | 0 | 22.04 | 21.94 | 22.11 |
| | | 1 | 1 | 22.93 | 22.63 | 22.81 |
| | | 1 | 50 | 23.27 | 23.17 | 23.06 |
| | | 25 | 12 | 23.07 | 22.95 | 23.02 |
| | DFT-s-OFDM 16QAM | 1 | 0 | 20.65 | 20.75 | 20.66 |
| | | 1 | 51 | 21.05 | 20.92 | 21.13 |
| | | 2 | 0 | 20.74 | 20.83 | 20.86 |
| | | 2 | 50 | 21.19 | 21.12 | 21.10 |
| | | 50 | 0 | 21.16 | 21.07 | 21.14 |
| | | 1 | 1 | 21.75 | 21.80 | 21.91 |
| | | 1 | 50 | 22.27 | 22.25 | 22.26 |
| | | 25 | 12 | 22.17 | 21.95 | 22.11 |
| | DFT-s-OFDM 64QAM | 1 | 0 | 20.50 | 20.47 | 20.40 |
| | | 1 | 51 | 20.87 | 20.74 | 21.00 |
| | | 2 | 0 | 20.42 | 20.33 | 20.37 |
| | | 2 | 50 | 20.61 | 20.64 | 20.64 |
| | | 50 | 0 | 20.70 | 20.65 | 20.55 |

| | | | | | | |
|---|---|---|---|---|---|---|
| | | 1 | 1 | 20.52 | 20.28 | 20.39 |
| | | 1 | 50 | 21.05 | 20.91 | 20.91 |
| | | 25 | 12 | 20.50 | 20.51 | 20.57 |
| | DFT-s-OFDM 256QAM | 1 | 0 | 18.55 | 18.52 | 18.53 |
| | | 1 | 51 | 18.60 | 18.37 | 18.51 |
| | | 2 | 0 | 18.63 | 18.48 | 18.50 |
| | | 2 | 50 | 18.46 | 18.35 | 18.49 |
| | | 50 | 0 | 18.19 | 18.12 | 18.35 |
| | | 1 | 1 | 18.52 | 18.53 | 18.55 |
| | | 1 | 50 | 18.44 | 18.36 | 18.41 |
| | | 25 | 12 | 18.26 | 18.20 | 18.31 |

| BW | MCS Index | Channel | | 165300 | 167300 | 169300 |
|---|---|---|---|---|---|---|
| | | Frequence (MHz) | | 826.5 | 836.5 | 846.5 |
| 5M | DFT-s-OFDM Pi/2 BPSK | 1 | 0 | 22.39 | 22.19 | 22.36 |
| | | 1 | 24 | 22.42 | 22.34 | 22.56 |
| | | 2 | 0 | 22.42 | 22.38 | 22.46 |
| | | 2 | 23 | 22.62 | 22.43 | 22.50 |
| | | 25 | 0 | 22.51 | 22.37 | 22.59 |
| | | 1 | 1 | 22.85 | 22.72 | 22.99 |
| | | 1 | 23 | 23.05 | 22.97 | 23.24 |
| | | 12 | 6 | 23.06 | 23.18 | 23.14 |
| | DFT-s-OFDM QPSK | 1 | 0 | 22.04 | 21.80 | 22.06 |
| | | 1 | 24 | 22.29 | 22.25 | 22.29 |
| | | 2 | 0 | 22.04 | 22.03 | 22.11 |
| | | 2 | 23 | 22.22 | 22.28 | 22.34 |
| | | 25 | 0 | 22.06 | 22.07 | 22.00 |
| | | 1 | 1 | 22.84 | 22.65 | 22.80 |
| | | 1 | 23 | 23.27 | 23.10 | 23.16 |
| | | 12 | 6 | 23.07 | 23.02 | 23.00 |
| | DFT-s-OFDM 16QAM | 1 | 0 | 20.65 | 20.61 | 20.71 |
| | | 1 | 24 | 20.99 | 20.92 | 21.01 |
| | | 2 | 0 | 20.81 | 20.82 | 20.87 |
| | | 2 | 23 | 21.12 | 21.08 | 21.16 |
| | | 25 | 0 | 21.14 | 21.04 | 21.11 |
| | | 1 | 1 | 21.76 | 21.78 | 21.89 |
| | | 1 | 23 | 22.36 | 22.17 | 22.31 |
| | | 12 | 6 | 22.17 | 21.93 | 22.09 |
| | DFT-s-OFDM 64QAM | 1 | 0 | 20.54 | 20.44 | 20.43 |
| | | 1 | 24 | 20.95 | 20.75 | 21.01 |

| | | | | | | |
|---|---|---|---|---|---|---|
| | | 2 | 0 | 20.43 | 20.33 | 20.48 |
| | | 2 | 23 | 20.68 | 20.59 | 20.69 |
| | | 25 | 0 | 20.70 | 20.54 | 20.50 |
| | | 1 | 1 | 20.44 | 20.35 | 20.42 |
| | | 1 | 23 | 21.05 | 20.91 | 21.03 |
| | | 12 | 6 | 20.61 | 20.53 | 20.56 |
| | DFT-s-OFDM 256QAM | 1 | 0 | 18.42 | 18.52 | 18.58 |
| | | 1 | 24 | 18.48 | 18.39 | 18.47 |
| | | 2 | 0 | 18.55 | 18.39 | 18.51 |
| | | 2 | 23 | 18.54 | 18.34 | 18.60 |
| | | 25 | 0 | 18.19 | 18.16 | 18.37 |
| | | 1 | 1 | 18.53 | 18.43 | 18.59 |
| | | 1 | 23 | 18.48 | 18.36 | 18.42 |
| | | 12 | 6 | 18.29 | 18.22 | 18.24 |

**N25**

| n25 (SCS 15 kHz) | | | | | | |
|---|---|---|---|---|---|---|
| BW | MCS Index | RB Size | RB Offset | Low | Mid | High |
| | | Channel | | 372000 | 376500 | 381000 |
| | | Frequence (MHz) | | 1860 | 1882.5 | 1905 |
| 20M | DFT-s-OFDM Pi/2 BPSK | 1 | 0 | 22.60 | 22.61 | 22.55 |
| | | 1 | 105 | 22.59 | 22.60 | 22.55 |
| | | 2 | 0 | 22.73 | 22.66 | 22.61 |
| | | 2 | 104 | 22.66 | 22.64 | 22.57 |
| | | 100 | 0 | 22.68 | 22.70 | 22.66 |
| | | 1 | 1 | 23.13 | 23.28 | 23.13 |
| | | 1 | 104 | 23.00 | 22.95 | 22.92 |
| | | 50 | 25 | 23.29 | 23.28 | 23.16 |
| | DFT-s-OFDM QPSK | 1 | 0 | 22.05 | 22.20 | 22.13 |
| | | 1 | 105 | 22.19 | 22.08 | 22.02 |
| | | 2 | 0 | 22.15 | 22.25 | 22.18 |
| | | 2 | 104 | 22.19 | 22.23 | 22.17 |
| | | 100 | 0 | 22.31 | 22.44 | 22.34 |
| | | 1 | 1 | 23.31 | 23.31 | 23.21 |
| | | 1 | 104 | 22.89 | 23.02 | 22.95 |
| | | 50 | 25 | **23.34** | 23.30 | 23.28 |
| | DFT-s-OFDM 16QAM | 1 | 0 | 21.17 | 21.23 | 21.29 |
| | | 1 | 105 | 21.33 | 21.39 | 21.28 |
| | | 2 | 0 | 21.23 | 21.23 | 21.22 |
| | | 2 | 104 | 21.19 | 21.25 | 21.18 |
| | | 100 | 0 | 21.35 | 21.46 | 21.36 |
| | | 1 | 1 | 21.91 | 21.86 | 21.83 |
| | | 1 | 104 | 21.97 | 21.95 | 21.91 |
| | | 50 | 25 | 22.39 | 22.40 | 22.35 |
| | DFT-s-OFDM 64QAM | 1 | 0 | 20.25 | 20.24 | 20.19 |
| | | 1 | 105 | 20.31 | 20.30 | 20.21 |
| | | 2 | 0 | 20.09 | 20.26 | 20.22 |
| | | 2 | 104 | 20.27 | 20.32 | 20.18 |
| | | 100 | 0 | 20.24 | 20.28 | 20.23 |
| | | 1 | 1 | 20.36 | 20.34 | 20.34 |
| | | 1 | 104 | 20.34 | 20.28 | 20.22 |
| | | 50 | 25 | 20.87 | 20.96 | 20.93 |
| | DFT-s-OFDM 256QAM | 1 | 0 | 18.61 | 18.58 | 18.60 |
| | | 1 | 105 | 18.48 | 18.59 | 18.48 |
| | | 2 | 0 | 18.61 | 18.55 | 18.59 |
| | | 2 | 104 | 18.50 | 18.64 | 18.51 |

| | | | | | | |
|---|---|---|---|---|---|---|
| | | 100 | 0 | 18.89 | 18.94 | 18.81 |
| | | 1 | 1 | 18.56 | 18.45 | 18.44 |
| | | 1 | 104 | 18.51 | 18.52 | 18.44 |
| | | 50 | 25 | 18.93 | 18.97 | 18.90 |

| BW | MCS Index | Channel | | 371500 | 376500 | 381500 |
|---|---|---|---|---|---|---|
| | | Frequence (MHz) | | 1857.5 | 1882.5 | 1907.5 |
| 15M | DFT-s-OFDM Pi/2 BPSK | 1 | 0 | 22.48 | 22.58 | 22.53 |
| | | 1 | 78 | 22.50 | 22.51 | 22.45 |
| | | 2 | 0 | 22.68 | 22.56 | 22.57 |
| | | 2 | 77 | 22.52 | 22.52 | 22.46 |
| | | 75 | 0 | 22.57 | 22.56 | 22.61 |
| | | 1 | 1 | 23.03 | 23.25 | 23.08 |
| | | 1 | 77 | 22.89 | 22.81 | 22.81 |
| | | 36 | 18 | 23.24 | 23.15 | 23.14 |
| | DFT-s-OFDM QPSK | 1 | 0 | 22.01 | 22.13 | 21.98 |
| | | 1 | 78 | 22.07 | 22.07 | 21.90 |
| | | 2 | 0 | 22.09 | 22.13 | 22.09 |
| | | 2 | 77 | 22.06 | 22.11 | 22.13 |
| | | 75 | 0 | 22.20 | 22.43 | 22.32 |
| | | 1 | 1 | 23.26 | 23.23 | 23.14 |
| | | 1 | 77 | 22.76 | 22.94 | 22.80 |
| | | 36 | 18 | 23.27 | 23.23 | 23.22 |
| | DFT-s-OFDM 16QAM | 1 | 0 | 21.05 | 21.18 | 21.14 |
| | | 1 | 78 | 21.27 | 21.28 | 21.13 |
| | | 2 | 0 | 21.16 | 21.11 | 21.15 |
| | | 2 | 77 | 21.04 | 21.13 | 21.13 |
| | | 75 | 0 | 21.25 | 21.40 | 21.21 |
| | | 1 | 1 | 21.84 | 21.73 | 21.72 |
| | | 1 | 77 | 21.87 | 21.84 | 21.90 |
| | | 36 | 18 | 22.36 | 22.37 | 22.31 |
| | DFT-s-OFDM 64QAM | 1 | 0 | 20.13 | 20.16 | 20.11 |
| | | 1 | 78 | 20.26 | 20.27 | 20.17 |
| | | 2 | 0 | 19.97 | 20.15 | 20.10 |
| | | 2 | 77 | 20.23 | 20.17 | 20.13 |
| | | 75 | 0 | 20.17 | 20.24 | 20.13 |
| | | 1 | 1 | 20.35 | 20.31 | 20.28 |
| | | 1 | 77 | 20.25 | 20.27 | 20.17 |
| | | 36 | 18 | 20.78 | 20.82 | 20.91 |
| | DFT-s-OFDM 256QAM | 1 | 0 | 18.47 | 18.48 | 18.48 |
| | | 1 | 78 | 18.41 | 18.52 | 18.37 |

| | | | | | | |
|---|---|---|---|---|---|---|
| | | 2 | 0 | 18.51 | 18.43 | 18.54 |
| | | 2 | 77 | 18.36 | 18.56 | 18.49 |
| | | 75 | 0 | 18.84 | 18.89 | 18.78 |
| | | 1 | 1 | 18.52 | 18.44 | 18.42 |
| | | 1 | 77 | 18.43 | 18.40 | 18.37 |
| | | 36 | 18 | 18.88 | 18.91 | 18.88 |

| BW | MCS Index | Channel | | 371000 | 376500 | 382000 |
|---|---|---|---|---|---|---|
| | | Frequence (MHz) | | 1855 | 1882.5 | 1910 |
| 10M | DFT-s-OFDM Pi/2 BPSK | 1 | 0 | 22.45 | 22.56 | 22.43 |
| | | 1 | 51 | 22.58 | 22.54 | 22.46 |
| | | 2 | 0 | 22.61 | 22.62 | 22.55 |
| | | 2 | 50 | 22.63 | 22.59 | 22.49 |
| | | 50 | 0 | 22.59 | 22.58 | 22.54 |
| | | 1 | 1 | 23.03 | 23.21 | 23.07 |
| | | 1 | 50 | 22.85 | 22.92 | 22.89 |
| | | 25 | 12 | 23.26 | 23.25 | 23.09 |
| | DFT-s-OFDM QPSK | 1 | 0 | 22.04 | 22.13 | 22.10 |
| | | 1 | 51 | 22.16 | 22.04 | 21.99 |
| | | 2 | 0 | 22.12 | 22.12 | 22.04 |
| | | 2 | 50 | 22.17 | 22.17 | 22.15 |
| | | 50 | 0 | 22.16 | 22.37 | 22.19 |
| | | 1 | 1 | 23.29 | 23.16 | 23.06 |
| | | 1 | 50 | 22.84 | 22.93 | 22.91 |
| | | 25 | 12 | 23.29 | 23.20 | 23.20 |
| | DFT-s-OFDM 16QAM | 1 | 0 | 21.07 | 21.19 | 21.20 |
| | | 1 | 51 | 21.18 | 21.33 | 21.26 |
| | | 2 | 0 | 21.16 | 21.10 | 21.17 |
| | | 2 | 50 | 21.14 | 21.15 | 21.10 |
| | | 50 | 0 | 21.26 | 21.31 | 21.29 |
| | | 1 | 1 | 21.86 | 21.82 | 21.75 |
| | | 1 | 50 | 21.89 | 21.91 | 21.79 |
| | | 25 | 12 | 22.29 | 22.31 | 22.29 |
| | DFT-s-OFDM 64QAM | 1 | 0 | 20.22 | 20.19 | 20.17 |
| | | 1 | 51 | 20.17 | 20.23 | 20.15 |
| | | 2 | 0 | 20.07 | 20.25 | 20.13 |
| | | 2 | 50 | 20.22 | 20.26 | 20.11 |
| | | 50 | 0 | 20.15 | 20.27 | 20.22 |
| | | 1 | 1 | 20.22 | 20.25 | 20.20 |
| | | 1 | 50 | 20.26 | 20.18 | 20.13 |

| | | | | | | |
|---|---|---|---|---|---|---|
| | | 25 | 12 | 20.73 | 20.84 | 20.81 |
| | DFT-s-OFDM 256QAM | 1 | 0 | 18.60 | 18.50 | 18.50 |
| | | 1 | 51 | 18.42 | 18.46 | 18.36 |
| | | 2 | 0 | 18.55 | 18.54 | 18.55 |
| | | 2 | 50 | 18.47 | 18.55 | 18.46 |
| | | 50 | 0 | 18.79 | 18.93 | 18.76 |
| | | 1 | 1 | 18.42 | 18.38 | 18.35 |
| | | 1 | 50 | 18.40 | 18.43 | 18.42 |
| | | 25 | 12 | 18.85 | 18.91 | 18.87 |

| BW | MCS Index | Channel | | 370500 | 376500 | 382500 |
|---|---|---|---|---|---|---|
| | | Frequence (MHz) | | 1852.5 | 1882.5 | 1912.5 |
| 5M | DFT-s-OFDM Pi/2 BPSK | 1 | 0 | 22.51 | 22.58 | 22.41 |
| | | 1 | 24 | 22.46 | 22.55 | 22.50 |
| | | 2 | 0 | 22.71 | 22.60 | 22.48 |
| | | 2 | 23 | 22.59 | 22.49 | 22.52 |
| | | 25 | 0 | 22.61 | 22.64 | 22.60 |
| | | 1 | 1 | 23.11 | 23.26 | 22.99 |
| | | 1 | 23 | 22.97 | 22.80 | 22.90 |
| | | 12 | 6 | 23.21 | 23.25 | 23.12 |
| | DFT-s-OFDM QPSK | 1 | 0 | 21.93 | 22.05 | 21.98 |
| | | 1 | 24 | 22.10 | 21.95 | 21.92 |
| | | 2 | 0 | 22.09 | 22.15 | 22.10 |
| | | 2 | 23 | 22.15 | 22.13 | 22.08 |
| | | 25 | 0 | 22.27 | 22.39 | 22.30 |
| | | 1 | 1 | 23.16 | 23.19 | 23.13 |
| | | 1 | 23 | 22.83 | 23.00 | 22.93 |
| | | 12 | 6 | 23.19 | 23.17 | 23.26 |
| | DFT-s-OFDM 16QAM | 1 | 0 | 21.13 | 21.22 | 21.28 |
| | | 1 | 24 | 21.30 | 21.24 | 21.18 |
| | | 2 | 0 | 21.11 | 21.13 | 21.16 |
| | | 2 | 23 | 21.17 | 21.18 | 21.16 |
| | | 25 | 0 | 21.29 | 21.31 | 21.25 |
| | | 1 | 1 | 21.80 | 21.81 | 21.78 |
| | | 1 | 23 | 21.94 | 21.92 | 21.90 |
| | | 12 | 6 | 22.33 | 22.29 | 22.34 |
| | DFT-s-OFDM 64QAM | 1 | 0 | 20.12 | 20.22 | 20.09 |
| | | 1 | 24 | 20.26 | 20.17 | 20.16 |
| | | 2 | 0 | 20.06 | 20.23 | 20.08 |
| | | 2 | 23 | 20.26 | 20.30 | 20.16 |

| | | | | | | |
|---|---|---|---|---|---|---|
| | | 25 | 0 | 20.12 | 20.25 | 20.08 |
| | | 1 | 1 | 20.35 | 20.30 | 20.20 |
| | | 1 | 23 | 20.31 | 20.22 | 20.09 |
| | | 12 | 6 | 20.77 | 20.93 | 20.82 |
| | DFT-s-OFDM 256QAM | 1 | 0 | 18.51 | 18.43 | 18.45 |
| | | 1 | 24 | 18.41 | 18.52 | 18.46 |
| | | 2 | 0 | 18.53 | 18.50 | 18.57 |
| | | 2 | 23 | 18.37 | 18.50 | 18.42 |
| | | 25 | 0 | 18.76 | 18.93 | 18.66 |
| | | 1 | 1 | 18.50 | 18.42 | 18.35 |
| | | 1 | 23 | 18.39 | 18.48 | 18.34 |
| | | 12 | 6 | 18.81 | 18.93 | 18.87 |

**N41**

| n41 (SCS 30 kHz) | | | | | | |
|---|---|---|---|---|---|---|
| BW | MCS Index | RB Size | RB Offset | Low | Mid | High |
| | | Channel | | 509202 | 518598 | 528000 |
| | | Frequence (MHz) | | 2546.01 | 2592.99 | 2640 |
| 100M | DFT-s-OFDM Pi/2 BPSK | 1 | 0 | 22.65 | 22.53 | 22.66 |
| | | 1 | 272 | 22.36 | 22.35 | 22.43 |
| | | 2 | 0 | 22.78 | 22.70 | 22.80 |
| | | 2 | 271 | 22.29 | 22.22 | 22.39 |
| | | 270 | 0 | 23.09 | 23.01 | 23.18 |
| | | 1 | 1 | 23.22 | 23.06 | 23.20 |
| | | 1 | 271 | 22.76 | 22.66 | 22.74 |
| | | 135 | 67 | 23.26 | 23.13 | 23.24 |
| | DFT-s-OFDM QPSK | 1 | 0 | 22.67 | 22.68 | 22.76 |
| | | 1 | 272 | 22.24 | 22.22 | 22.21 |
| | | 2 | 0 | 22.75 | 22.72 | 22.67 |
| | | 2 | 271 | 22.41 | 22.34 | 22.48 |
| | | 270 | 0 | 23.07 | 23.04 | 23.01 |
| | | 1 | 1 | 23.44 | 23.26 | **23.45** |
| | | 1 | 271 | 22.97 | 23.02 | 23.05 |
| | | 135 | 67 | 23.07 | 23.01 | 23.11 |
| | DFT-s-OFDM 16QAM | 1 | 0 | 22.74 | 22.57 | 22.77 |
| | | 1 | 272 | 22.33 | 22.21 | 22.26 |
| | | 2 | 0 | 22.61 | 22.56 | 22.65 |
| | | 2 | 271 | 22.15 | 22.18 | 22.26 |
| | | 270 | 0 | 23.17 | 23.01 | 23.10 |
| | | 1 | 1 | 23.12 | 23.10 | 23.21 |
| | | 1 | 271 | 22.89 | 22.72 | 22.86 |
| | | 135 | 67 | 23.07 | 23.13 | 23.10 |
| | DFT-s-OFDM 64QAM | 1 | 0 | 22.49 | 22.45 | 22.44 |
| | | 1 | 272 | 22.13 | 22.12 | 22.20 |
| | | 2 | 0 | 22.73 | 22.60 | 22.79 |
| | | 2 | 271 | 22.42 | 22.37 | 22.48 |
| | | 270 | 0 | 23.15 | 23.08 | 23.19 |
| | | 1 | 1 | 23.10 | 23.03 | 23.21 |
| | | 1 | 271 | 22.89 | 22.81 | 22.94 |
| | | 135 | 67 | 23.19 | 23.04 | 23.20 |
| | DFT-s-OFDM 256QAM | 1 | 0 | 21.73 | 21.64 | 21.64 |
| | | 1 | 272 | 21.22 | 21.17 | 21.27 |
| | | 2 | 0 | 21.53 | 21.39 | 21.48 |
| | | 2 | 271 | 21.12 | 21.10 | 21.19 |

| | | | | | | |
|---|---|---|---|---|---|---|
| | | 270 | 0 | 21.58 | 21.53 | 21.60 |
| | | 1 | 1 | 21.47 | 21.39 | 21.48 |
| | | 1 | 271 | 21.11 | 21.16 | 21.17 |
| | | 135 | 67 | 21.72 | 21.58 | 21.74 |

| BW | MCS Index | Channel | | 508200 | 518598 | 528996 |
|---|---|---|---|---|---|---|
| | | Frequence (MHz) | | 2541 | 2592.99 | 2644.98 |
| 90M | DFT-s-OFDM Pi/2 BPSK | 1 | 0 | 22.57 | 22.39 | 22.57 |
| | | 1 | 244 | 22.33 | 22.33 | 22.31 |
| | | 2 | 0 | 22.73 | 22.63 | 22.71 |
| | | 2 | 243 | 22.15 | 22.10 | 22.30 |
| | | 240 | 0 | 22.99 | 23.00 | 23.05 |
| | | 1 | 1 | 23.09 | 23.04 | 23.07 |
| | | 1 | 243 | 22.73 | 22.54 | 22.64 |
| | | 120 | 60 | 23.25 | 23.06 | 23.17 |
| | DFT-s-OFDM QPSK | 1 | 0 | 22.60 | 22.54 | 22.66 |
| | | 1 | 244 | 22.11 | 22.07 | 22.06 |
| | | 2 | 0 | 22.70 | 22.70 | 22.56 |
| | | 2 | 243 | 22.40 | 22.27 | 22.38 |
| | | 240 | 0 | 22.94 | 22.94 | 22.90 |
| | | 1 | 1 | 23.11 | 22.95 | 23.06 |
| | | 1 | 243 | 22.74 | 22.64 | 22.82 |
| | | 120 | 60 | 23.00 | 23.10 | 22.99 |
| | DFT-s-OFDM 16QAM | 1 | 0 | 22.65 | 22.55 | 22.73 |
| | | 1 | 244 | 22.29 | 22.14 | 22.12 |
| | | 2 | 0 | 22.57 | 22.50 | 22.51 |
| | | 2 | 243 | 22.12 | 22.16 | 22.18 |
| | | 240 | 0 | 23.02 | 22.95 | 23.06 |
| | | 1 | 1 | 23.29 | 23.24 | 23.44 |
| | | 1 | 243 | 22.82 | 22.90 | 23.04 |
| | | 120 | 60 | 22.96 | 22.93 | 23.10 |
| | DFT-s-OFDM 64QAM | 1 | 0 | 22.35 | 22.41 | 22.37 |
| | | 1 | 244 | 22.07 | 22.02 | 22.14 |
| | | 2 | 0 | 22.58 | 22.47 | 22.71 |
| | | 2 | 243 | 22.30 | 22.22 | 22.35 |
| | | 240 | 0 | 23.14 | 23.04 | 23.14 |
| | | 1 | 1 | 22.96 | 22.95 | 23.10 |
| | | 1 | 243 | 22.74 | 22.74 | 22.93 |
| | | 120 | 60 | 23.04 | 22.98 | 23.10 |
| | DFT-s-OFDM 256QAM | 1 | 0 | 21.68 | 21.58 | 21.54 |
| | | 1 | 244 | 21.07 | 21.03 | 21.12 |

| | | | | | | |
|---|---|---|---|---|---|---|
| | | 2 | 0 | 21.43 | 21.27 | 21.45 |
| | | 2 | 243 | 21.09 | 20.96 | 21.09 |
| | | 240 | 0 | 21.45 | 21.46 | 21.56 |
| | | 1 | 1 | 21.39 | 21.26 | 21.43 |
| | | 1 | 243 | 21.02 | 21.01 | 21.13 |
| | | 120 | 60 | 21.67 | 21.45 | 21.71 |

| BW | MCS Index | Channel | | 507204 | 518598 | 529998 |
|---|---|---|---|---|---|---|
| | | Frequence (MHz) | | 2536.02 | 2592.99 | 2649.99 |
| 80M | DFT-s-OFDM Pi/2 BPSK | 1 | 0 | 22.61 | 22.48 | 22.53 |
| | | 1 | 216 | 22.21 | 22.27 | 22.41 |
| | | 2 | 0 | 22.76 | 22.57 | 22.74 |
| | | 2 | 215 | 22.18 | 22.21 | 22.32 |
| | | 216 | 0 | 22.94 | 22.98 | 23.14 |
| | | 1 | 1 | 23.09 | 22.97 | 23.06 |
| | | 1 | 215 | 22.65 | 22.52 | 22.60 |
| | | 108 | 54 | 23.12 | 23.09 | 23.19 |
| | DFT-s-OFDM QPSK | 1 | 0 | 22.57 | 22.58 | 22.67 |
| | | 1 | 216 | 22.12 | 22.16 | 22.07 |
| | | 2 | 0 | 22.67 | 22.63 | 22.56 |
| | | 2 | 215 | 22.39 | 22.25 | 22.39 |
| | | 216 | 0 | 22.96 | 22.99 | 22.92 |
| | | 1 | 1 | 23.11 | 23.04 | 23.06 |
| | | 1 | 215 | 22.83 | 22.66 | 22.82 |
| | | 108 | 54 | 23.03 | 22.98 | 22.97 |
| | DFT-s-OFDM 16QAM | 1 | 0 | 22.71 | 22.50 | 22.67 |
| | | 1 | 216 | 22.27 | 22.20 | 22.21 |
| | | 2 | 0 | 22.59 | 22.50 | 22.64 |
| | | 2 | 215 | 22.00 | 22.12 | 22.12 |
| | | 216 | 0 | 23.14 | 22.87 | 23.01 |
| | | 1 | 1 | 23.41 | 23.25 | 23.43 |
| | | 1 | 215 | 22.92 | 22.92 | 22.97 |
| | | 108 | 54 | 22.98 | 23.00 | 23.03 |
| | DFT-s-OFDM 64QAM | 1 | 0 | 22.47 | 22.35 | 22.38 |
| | | 1 | 216 | 22.03 | 21.99 | 22.10 |
| | | 2 | 0 | 22.71 | 22.47 | 22.78 |
| | | 2 | 215 | 22.34 | 22.25 | 22.39 |
| | | 216 | 0 | 23.10 | 23.03 | 23.08 |
| | | 1 | 1 | 23.00 | 22.89 | 23.08 |
| | | 1 | 215 | 22.85 | 22.74 | 22.84 |
| | | 108 | 54 | 23.18 | 23.03 | 23.07 |

| | | | | | | |
|---|---|---|---|---|---|---|
| | DFT-s-OFDM 256QAM | 1 | 0 | 21.68 | 21.59 | 21.58 |
| | | 1 | 216 | 21.20 | 21.07 | 21.12 |
| | | 2 | 0 | 21.38 | 21.37 | 21.44 |
| | | 2 | 215 | 21.07 | 21.07 | 21.07 |
| | | 216 | 0 | 21.51 | 21.50 | 21.56 |
| | | 1 | 1 | 21.34 | 21.33 | 21.35 |
| | | 1 | 215 | 20.98 | 21.14 | 21.07 |
| | | 108 | 54 | 21.62 | 21.46 | 21.73 |

| BW | MCS Index | Channel | | 505200 | 518598 | 531996 |
|---|---|---|---|---|---|---|
| | | Frequence (MHz) | | 2526 | 2592.99 | 2659.98 |
| 60M | DFT-s-OFDM Pi/2 BPSK | 1 | 0 | 22.52 | 22.38 | 22.65 |
| | | 1 | 161 | 22.25 | 22.29 | 22.33 |
| | | 2 | 0 | 22.66 | 22.67 | 22.79 |
| | | 2 | 160 | 22.18 | 22.11 | 22.36 |
| | | 162 | 0 | 23.08 | 22.98 | 23.12 |
| | | 1 | 1 | 23.18 | 22.98 | 23.10 |
| | | 1 | 160 | 22.72 | 22.61 | 22.68 |
| | | 81 | 40 | 23.24 | 23.01 | 23.23 |
| | DFT-s-OFDM QPSK | 1 | 0 | 22.65 | 22.66 | 22.63 |
| | | 1 | 161 | 22.15 | 22.15 | 22.10 |
| | | 2 | 0 | 22.71 | 22.57 | 22.66 |
| | | 2 | 160 | 22.29 | 22.25 | 22.38 |
| | | 162 | 0 | 22.93 | 22.90 | 22.94 |
| | | 1 | 1 | 23.08 | 23.07 | 23.12 |
| | | 1 | 160 | 22.86 | 22.70 | 22.78 |
| | | 81 | 40 | 22.97 | 23.11 | 22.95 |
| | DFT-s-OFDM 16QAM | 1 | 0 | 22.64 | 22.49 | 22.75 |
| | | 1 | 161 | 22.29 | 22.06 | 22.21 |
| | | 2 | 0 | 22.56 | 22.53 | 22.57 |
| | | 2 | 160 | 22.14 | 22.16 | 22.19 |
| | | 162 | 0 | 23.05 | 22.95 | 23.06 |
| | | 1 | 1 | 23.41 | 23.12 | 23.42 |
| | | 1 | 160 | 22.82 | 22.97 | 22.95 |
| | | 81 | 40 | 23.02 | 22.95 | 23.06 |
| | DFT-s-OFDM 64QAM | 1 | 0 | 22.46 | 22.30 | 22.35 |
| | | 1 | 161 | 22.01 | 21.97 | 22.14 |
| | | 2 | 0 | 22.72 | 22.52 | 22.74 |
| | | 2 | 160 | 22.30 | 22.29 | 22.47 |
| | | 162 | 0 | 23.08 | 22.97 | 23.13 |
| | | 1 | 1 | 22.99 | 22.98 | 23.16 |

| | | | | | | |
|---|---|---|---|---|---|---|
| | | 1 | 160 | 22.88 | 22.66 | 22.89 |
| | | 81 | 40 | 23.08 | 23.02 | 23.07 |
| | DFT-s-OFDM 256QAM | 1 | 0 | 21.64 | 21.55 | 21.52 |
| | | 1 | 161 | 21.18 | 21.11 | 21.22 |
| | | 2 | 0 | 21.42 | 21.32 | 21.36 |
| | | 2 | 160 | 20.97 | 21.08 | 21.05 |
| | | 162 | 0 | 21.45 | 21.42 | 21.48 |
| | | 1 | 1 | 21.39 | 21.33 | 21.46 |
| | | 1 | 160 | 20.96 | 21.12 | 21.13 |
| | | 81 | 40 | 21.65 | 21.44 | 21.69 |

| BW | MCS Index | Channel | | 504204 | 518598 | 532998 |
|---|---|---|---|---|---|---|
| | | Frequence (MHz) | | 2521.02 | 2592.99 | 2664.99 |
| 50M | DFT-s-OFDM Pi/2 BPSK | 1 | 0 | 22.61 | 22.47 | 22.60 |
| | | 1 | 132 | 22.30 | 22.27 | 22.38 |
| | | 2 | 0 | 22.64 | 22.59 | 22.69 |
| | | 2 | 131 | 22.24 | 22.17 | 22.34 |
| | | 128 | 0 | 22.98 | 22.96 | 23.09 |
| | | 1 | 1 | 23.07 | 22.98 | 23.16 |
| | | 1 | 131 | 22.64 | 22.58 | 22.67 |
| | | 64 | 32 | 23.11 | 23.00 | 23.10 |
| | DFT-s-OFDM QPSK | 1 | 0 | 22.65 | 22.66 | 22.74 |
| | | 1 | 132 | 22.19 | 22.08 | 22.09 |
| | | 2 | 0 | 22.67 | 22.63 | 22.64 |
| | | 2 | 131 | 22.39 | 22.24 | 22.38 |
| | | 128 | 0 | 22.97 | 22.91 | 23.00 |
| | | 1 | 1 | 23.09 | 23.04 | 23.16 |
| | | 1 | 131 | 22.83 | 22.70 | 22.81 |
| | | 64 | 32 | 22.98 | 23.12 | 23.08 |
| | DFT-s-OFDM 16QAM | 1 | 0 | 22.67 | 22.53 | 22.63 |
| | | 1 | 132 | 22.30 | 22.16 | 22.15 |
| | | 2 | 0 | 22.55 | 22.49 | 22.55 |
| | | 2 | 131 | 22.11 | 22.17 | 22.19 |
| | | 128 | 0 | 23.13 | 22.93 | 23.03 |
| | | 1 | 1 | 23.35 | 23.16 | 23.35 |
| | | 1 | 131 | 22.96 | 22.94 | 23.01 |
| | | 64 | 32 | 23.03 | 22.95 | 23.08 |
| | DFT-s-OFDM 64QAM | 1 | 0 | 22.45 | 22.41 | 22.39 |
| | | 1 | 132 | 22.02 | 22.07 | 22.08 |
| | | 2 | 0 | 22.64 | 22.47 | 22.74 |
| | | 2 | 131 | 22.40 | 22.28 | 22.47 |

| | | | | | | |
|---|---|---|---|---|---|---|
| | | 128 | 0 | 23.06 | 22.98 | 23.12 |
| | | 1 | 1 | 23.07 | 22.94 | 23.16 |
| | | 1 | 131 | 22.81 | 22.69 | 22.90 |
| | | 64 | 32 | 23.18 | 22.94 | 23.08 |
| | DFT-s-OFDM 256QAM | 1 | 0 | 21.71 | 21.58 | 21.55 |
| | | 1 | 132 | 21.18 | 21.12 | 21.25 |
| | | 2 | 0 | 21.45 | 21.37 | 21.39 |
| | | 2 | 131 | 21.08 | 21.03 | 21.08 |
| | | 128 | 0 | 21.49 | 21.38 | 21.48 |
| | | 1 | 1 | 21.46 | 21.31 | 21.44 |
| | | 1 | 131 | 21.06 | 21.08 | 21.06 |
| | | 64 | 32 | 21.58 | 21.51 | 21.70 |

| BW | MCS Index | Channel | | 503201.8 | 518597.8 | 533999.8 |
|---|---|---|---|---|---|---|
| | | Frequence (MHz) | | 2515.81 | 2592.79 | 2669.8 |
| 40M | DFT-s-OFDM Pi/2 BPSK | 1 | 0 | 22.62 | 22.45 | 22.65 |
| | | 1 | 105 | 22.33 | 22.30 | 22.37 |
| | | 2 | 0 | 22.68 | 22.63 | 22.71 |
| | | 2 | 104 | 22.28 | 22.14 | 22.36 |
| | | 100 | 0 | 23.00 | 23.00 | 23.06 |
| | | 1 | 1 | 23.13 | 22.94 | 23.06 |
| | | 1 | 104 | 22.69 | 22.58 | 22.67 |
| | | 50 | 25 | 23.19 | 23.10 | 23.19 |
| | DFT-s-OFDM QPSK | 1 | 0 | 22.64 | 22.55 | 22.64 |
| | | 1 | 105 | 22.16 | 22.21 | 22.07 |
| | | 2 | 0 | 22.70 | 22.57 | 22.62 |
| | | 2 | 104 | 22.38 | 22.33 | 22.36 |
| | | 100 | 0 | 22.95 | 23.03 | 23.00 |
| | | 1 | 1 | 23.08 | 22.96 | 23.10 |
| | | 1 | 104 | 22.78 | 22.62 | 22.74 |
| | | 50 | 25 | 22.99 | 23.08 | 23.01 |
| | DFT-s-OFDM 16QAM | 1 | 0 | 22.63 | 22.50 | 22.62 |
| | | 1 | 105 | 22.30 | 22.20 | 22.12 |
| | | 2 | 0 | 22.57 | 22.48 | 22.54 |
| | | 2 | 104 | 22.01 | 22.05 | 22.12 |
| | | 100 | 0 | 23.14 | 22.91 | 23.05 |
| | | 1 | 1 | 23.30 | 23.14 | 23.33 |
| | | 1 | 104 | 22.87 | 22.97 | 22.97 |
| | | 50 | 25 | 23.00 | 23.00 | 23.04 |
| | DFT-s-OFDM 64QAM | 1 | 0 | 22.35 | 22.32 | 22.41 |
| | | 1 | 105 | 22.10 | 22.08 | 22.07 |

| | | | | | | |
|---|---|---|---|---|---|---|
| | | 2 | 0 | 22.62 | 22.48 | 22.77 |
| | | 2 | 104 | 22.34 | 22.34 | 22.38 |
| | | 100 | 0 | 23.08 | 23.05 | 23.16 |
| | | 1 | 1 | 22.99 | 23.00 | 23.16 |
| | | 1 | 104 | 22.77 | 22.68 | 22.89 |
| | | 50 | 25 | 23.08 | 22.99 | 23.15 |
| | DFT-s-OFDM 256QAM | 1 | 0 | 21.70 | 21.62 | 21.51 |
| | | 1 | 105 | 21.14 | 21.12 | 21.25 |
| | | 2 | 0 | 21.49 | 21.35 | 21.36 |
| | | 2 | 104 | 21.10 | 21.08 | 21.17 |
| | | 100 | 0 | 21.56 | 21.43 | 21.46 |
| | | 1 | 1 | 21.40 | 21.35 | 21.42 |
| | | 1 | 104 | 20.97 | 21.05 | 21.03 |
| | | 50 | 25 | 21.57 | 21.44 | 21.72 |

| BW | MCS Index | Channel | | 502200 | 518598 | 534996 |
|---|---|---|---|---|---|---|
| | | Frequence (MHz) | | 2511 | 2592.99 | 2674.98 |
| 30M | DFT-s-OFDM Pi/2 BPSK | 1 | 0 | 22.62 | 22.47 | 22.65 |
| | | 1 | 77 | 22.25 | 22.21 | 22.32 |
| | | 2 | 0 | 22.69 | 22.56 | 22.73 |
| | | 2 | 76 | 22.21 | 22.08 | 22.25 |
| | | 75 | 0 | 22.94 | 22.89 | 23.16 |
| | | 1 | 1 | 23.11 | 23.02 | 23.06 |
| | | 1 | 76 | 22.73 | 22.63 | 22.73 |
| | | 36 | 18 | 23.21 | 23.04 | 23.17 |
| | DFT-s-OFDM QPSK | 1 | 0 | 22.54 | 22.55 | 22.72 |
| | | 1 | 77 | 22.22 | 22.15 | 22.19 |
| | | 2 | 0 | 22.61 | 22.68 | 22.57 |
| | | 2 | 76 | 22.28 | 22.19 | 22.45 |
| | | 75 | 0 | 23.01 | 22.89 | 22.96 |
| | | 1 | 1 | 23.01 | 23.03 | 23.15 |
| | | 1 | 76 | 22.82 | 22.62 | 22.81 |
| | | 36 | 18 | 22.96 | 23.06 | 23.02 |
| | DFT-s-OFDM 16QAM | 1 | 0 | 22.73 | 22.55 | 22.66 |
| | | 1 | 77 | 22.22 | 22.11 | 22.16 |
| | | 2 | 0 | 22.52 | 22.47 | 22.55 |
| | | 2 | 76 | 22.09 | 22.03 | 22.15 |
| | | 75 | 0 | 23.04 | 22.99 | 23.05 |
| | | 1 | 1 | 23.36 | 23.19 | 23.40 |
| | | 1 | 76 | 22.86 | 22.96 | 22.95 |
| | | 36 | 18 | 22.93 | 22.92 | 22.97 |
| | DFT-s-OFDM | 1 | 0 | 22.44 | 22.39 | 22.33 |

| | | | | | | |
|---|---|---|---|---|---|---|
| | 64QAM | 1 | 77 | 22.09 | 21.99 | 22.06 |
| | | 2 | 0 | 22.67 | 22.52 | 22.70 |
| | | 2 | 76 | 22.33 | 22.28 | 22.39 |
| | | 75 | 0 | 23.05 | 22.97 | 23.17 |
| | | 1 | 1 | 23.06 | 23.01 | 23.19 |
| | | 1 | 76 | 22.88 | 22.71 | 22.81 |
| | | 36 | 18 | 23.16 | 22.97 | 23.14 |
| | DFT-s-OFDM 256QAM | 1 | 0 | 21.71 | 21.57 | 21.53 |
| | | 1 | 77 | 21.17 | 21.05 | 21.18 |
| | | 2 | 0 | 21.52 | 21.31 | 21.40 |
| | | 2 | 76 | 21.09 | 21.07 | 21.06 |
| | | 75 | 0 | 21.50 | 21.38 | 21.48 |
| | | 1 | 1 | 21.41 | 21.32 | 21.35 |
| | | 1 | 76 | 21.09 | 21.04 | 21.03 |
| | | 36 | 18 | 21.58 | 21.53 | 21.61 |

| BW | MCS Index | Channel | | 501204 | 518598 | 535998 |
|---|---|---|---|---|---|---|
| | | Frequence (MHz) | | 2506.02 | 2592.99 | 2679.99 |
| 20M | DFT-s-OFDM Pi/2 BPSK | 1 | 0 | 22.59 | 22.41 | 22.59 |
| | | 1 | 50 | 22.28 | 22.28 | 22.34 |
| | | 2 | 0 | 22.72 | 22.61 | 22.70 |
| | | 2 | 49 | 22.19 | 22.20 | 22.38 |
| | | 50 | 0 | 23.07 | 22.88 | 23.13 |
| | | 1 | 1 | 23.19 | 23.01 | 23.06 |
| | | 1 | 49 | 22.72 | 22.59 | 22.72 |
| | | 25 | 12 | 23.12 | 23.07 | 23.18 |
| | DFT-s-OFDM QPSK | 1 | 0 | 22.54 | 22.53 | 22.74 |
| | | 1 | 50 | 22.14 | 22.16 | 22.12 |
| | | 2 | 0 | 22.67 | 22.62 | 22.66 |
| | | 2 | 49 | 22.39 | 22.28 | 22.47 |
| | | 50 | 0 | 23.01 | 23.01 | 22.96 |
| | | 1 | 1 | 23.01 | 23.00 | 23.08 |
| | | 1 | 49 | 22.76 | 22.69 | 22.83 |
| | | 25 | 12 | 22.93 | 23.04 | 23.07 |
| | DFT-s-OFDM 16QAM | 1 | 0 | 22.60 | 22.45 | 22.70 |
| | | 1 | 50 | 22.28 | 22.10 | 22.23 |
| | | 2 | 0 | 22.48 | 22.51 | 22.53 |
| | | 2 | 49 | 22.08 | 22.10 | 22.22 |
| | | 50 | 0 | 23.06 | 22.96 | 23.06 |
| | | 2 | 49 | 23.29 | 23.20 | 23.35 |
| | | 25 | 12 | 22.86 | 22.89 | 22.94 |

| | | | | | | |
|---|---|---|---|---|---|---|
| | | 50 | 0 | 22.99 | 22.97 | 23.10 |
| | DFT-s-OFDM 64QAM | 1 | 0 | 22.37 | 22.39 | 22.43 |
| | | 1 | 50 | 21.98 | 22.00 | 22.08 |
| | | 2 | 0 | 22.67 | 22.47 | 22.76 |
| | | 2 | 49 | 22.29 | 22.30 | 22.45 |
| | | 50 | 0 | 23.02 | 23.07 | 23.12 |
| | | 1 | 1 | 22.97 | 22.88 | 23.06 |
| | | 1 | 49 | 22.75 | 22.78 | 22.79 |
| | | 25 | 12 | 23.14 | 22.94 | 23.09 |
| | DFT-s-OFDM 256QAM | 1 | 0 | 21.60 | 21.55 | 21.62 |
| | | 1 | 50 | 21.14 | 21.13 | 21.14 |
| | | 2 | 0 | 21.38 | 21.29 | 21.36 |
| | | 2 | 49 | 20.97 | 21.07 | 21.07 |
| | | 50 | 0 | 21.51 | 21.52 | 21.58 |
| | | 1 | 1 | 21.41 | 21.28 | 21.43 |
| | | 1 | 49 | 21.03 | 21.12 | 21.05 |
| | | 25 | 12 | 21.59 | 21.48 | 21.69 |

**N41 HPUE**

| n41 (SCS 30 kHz) | | | | | | |
|---|---|---|---|---|---|---|
| BW | MCS Index | RB Size | RB Offset | Low | Mid | High |
| | | Channel | | 509202 | 518598 | 528000 |
| | | Frequence (MHz) | | 2546.01 | 2592.99 | 2640 |
| 100M | DFT-s-OFDM Pi/2 BPSK | 1 | 0 | 22.98 | 22.91 | 22.94 |
| | | 1 | 272 | 22.60 | 22.54 | 22.58 |
| | | 2 | 0 | 23.04 | 22.99 | 23.08 |
| | | 2 | 271 | 22.60 | 22.54 | 22.68 |
| | | 270 | 0 | 25.77 | 25.74 | 25.89 |
| | | 1 | 1 | 26.29 | 26.35 | 26.32 |
| | | 1 | 271 | 26.06 | 26.07 | 26.01 |
| | | 135 | 67 | 26.36 | 26.29 | 26.35 |
| | DFT-s-OFDM QPSK | 1 | 0 | 23.00 | 22.95 | 23.01 |
| | | 1 | 272 | 22.61 | 22.49 | 22.66 |
| | | 2 | 0 | 22.86 | 22.92 | 22.89 |
| | | 2 | 271 | 22.62 | 22.69 | 22.75 |
| | | 270 | 0 | 25.33 | 25.31 | 25.40 |
| | | 1 | 1 | 26.43 | 26.27 | 26.42 |
| | | 1 | 271 | 26.07 | 26.11 | 26.08 |
| | | 135 | 67 | 26.43 | 26.33 | **26.48** |
| | DFT-s-OFDM 16QAM | 1 | 0 | 23.04 | 23.01 | 23.07 |
| | | 1 | 272 | 22.57 | 22.59 | 22.60 |
| | | 2 | 0 | 22.80 | 22.81 | 22.76 |
| | | 2 | 271 | 22.44 | 22.38 | 22.48 |
| | | 270 | 0 | 24.39 | 24.32 | 24.46 |
| | | 1 | 1 | 25.16 | 25.09 | 25.21 |
| | | 1 | 271 | 24.80 | 24.85 | 24.91 |
| | | 135 | 67 | 25.33 | 25.23 | 25.39 |
| | DFT-s-OFDM 64QAM | 1 | 0 | 22.99 | 23.00 | 23.07 |
| | | 1 | 272 | 22.66 | 22.66 | 22.64 |
| | | 2 | 0 | 23.06 | 23.05 | 23.18 |
| | | 2 | 271 | 22.75 | 22.76 | 22.83 |
| | | 270 | 0 | 23.87 | 23.74 | 23.81 |
| | | 1 | 1 | 23.96 | 24.02 | 23.99 |
| | | 1 | 271 | 23.65 | 23.57 | 23.64 |
| | | 135 | 67 | 23.67 | 23.71 | 23.77 |
| | DFT-s-OFDM 256QAM | 1 | 0 | 21.71 | 21.70 | 21.85 |
| | | 1 | 272 | 21.40 | 21.40 | 21.52 |
| | | 2 | 0 | 21.66 | 21.75 | 21.78 |
| | | 2 | 271 | 21.48 | 21.39 | 21.40 |

| | | | | | | |
|---|---|---|---|---|---|---|
| | | 270 | 0 | 21.93 | 21.86 | 21.87 |
| | | 1 | 1 | 21.81 | 21.75 | 21.88 |
| | | 1 | 271 | 21.47 | 21.45 | 21.51 |
| | | 135 | 67 | 21.88 | 21.93 | 21.92 |

| BW | MCS Index | Channel | | 508200 | 518598 | 528996 |
|---|---|---|---|---|---|---|
| | | Frequence (MHz) | | 2541 | 2592.99 | 2644.98 |
| 90M | DFT-s-OFDM Pi/2 BPSK | 1 | 0 | 22.93 | 22.77 | 22.82 |
| | | 1 | 244 | 22.54 | 22.46 | 22.43 |
| | | 2 | 0 | 22.90 | 22.91 | 22.93 |
| | | 2 | 243 | 22.59 | 22.39 | 22.65 |
| | | 240 | 0 | 25.67 | 25.63 | 25.82 |
| | | 1 | 1 | 26.36 | 26.13 | 26.41 |
| | | 1 | 243 | 26.05 | 26.05 | 25.98 |
| | | 120 | 60 | 26.28 | 26.18 | 26.37 |
| | DFT-s-OFDM QPSK | 1 | 0 | 22.95 | 22.94 | 22.94 |
| | | 1 | 244 | 22.55 | 22.43 | 22.58 |
| | | 2 | 0 | 22.79 | 22.79 | 22.75 |
| | | 2 | 243 | 22.60 | 22.66 | 22.71 |
| | | 240 | 0 | 25.28 | 25.23 | 25.31 |
| | | 1 | 1 | 26.19 | 26.33 | 26.23 |
| | | 1 | 243 | 25.96 | 26.01 | 25.98 |
| | | 120 | 60 | 26.26 | 26.20 | 26.26 |
| | DFT-s-OFDM 16QAM | 1 | 0 | 23.00 | 23.00 | 22.99 |
| | | 1 | 244 | 22.54 | 22.53 | 22.50 |
| | | 2 | 0 | 22.71 | 22.67 | 22.71 |
| | | 2 | 243 | 22.38 | 22.32 | 22.37 |
| | | 240 | 0 | 24.36 | 24.24 | 24.45 |
| | | 1 | 1 | 25.01 | 25.08 | 25.18 |
| | | 1 | 243 | 24.67 | 24.71 | 24.84 |
| | | 120 | 60 | 25.31 | 25.13 | 25.24 |
| | DFT-s-OFDM 64QAM | 1 | 0 | 22.85 | 22.92 | 22.93 |
| | | 1 | 244 | 22.60 | 22.55 | 22.63 |
| | | 2 | 0 | 22.92 | 22.97 | 23.10 |
| | | 2 | 243 | 22.67 | 22.73 | 22.78 |
| | | 240 | 0 | 23.78 | 23.68 | 23.66 |
| | | 1 | 1 | 23.85 | 23.97 | 23.96 |
| | | 1 | 243 | 23.56 | 23.56 | 23.61 |
| | | 120 | 60 | 23.63 | 23.68 | 23.63 |
| | DFT-s-OFDM 256QAM | 1 | 0 | 21.57 | 21.57 | 21.80 |
| | | 1 | 244 | 21.34 | 21.27 | 21.50 |

| | | | | | | |
|---|---|---|---|---|---|---|
| | | 2 | 0 | 21.59 | 21.70 | 21.69 |
| | | 2 | 243 | 21.35 | 21.25 | 21.32 |
| | | 240 | 0 | 21.88 | 21.73 | 21.85 |
| | | 1 | 1 | 21.71 | 21.73 | 21.80 |
| | | 1 | 243 | 21.32 | 21.35 | 21.43 |
| | | 120 | 60 | 21.79 | 21.90 | 21.83 |

| BW | MCS Index | Channel | | 507204 | 518598 | 529998 |
|---|---|---|---|---|---|---|
| | | Frequence (MHz) | | 2536.02 | 2592.99 | 2649.99 |
| 80M | DFT-s-OFDM Pi/2 BPSK | 1 | 0 | 22.90 | 22.81 | 22.93 |
| | | 1 | 216 | 22.55 | 22.42 | 22.49 |
| | | 2 | 0 | 22.93 | 22.96 | 22.94 |
| | | 2 | 215 | 22.58 | 22.47 | 22.67 |
| | | 216 | 0 | 25.65 | 25.60 | 25.84 |
| | | 1 | 1 | 26.40 | 26.12 | 26.38 |
| | | 1 | 215 | 26.05 | 25.99 | 26.05 |
| | | 108 | 54 | 26.39 | 26.24 | 26.37 |
| | DFT-s-OFDM QPSK | 1 | 0 | 22.93 | 22.93 | 22.99 |
| | | 1 | 216 | 22.48 | 22.48 | 22.63 |
| | | 2 | 0 | 22.76 | 22.80 | 22.84 |
| | | 2 | 215 | 22.55 | 22.59 | 22.61 |
| | | 216 | 0 | 25.18 | 25.17 | 25.28 |
| | | 1 | 1 | 26.26 | 26.23 | 26.30 |
| | | 1 | 215 | 26.03 | 25.94 | 25.98 |
| | | 108 | 54 | 26.22 | 26.27 | 26.34 |
| | DFT-s-OFDM 16QAM | 1 | 0 | 23.03 | 22.97 | 22.94 |
| | | 1 | 216 | 22.53 | 22.46 | 22.51 |
| | | 2 | 0 | 22.67 | 22.71 | 22.72 |
| | | 2 | 215 | 22.33 | 22.32 | 22.46 |
| | | 216 | 0 | 24.35 | 24.21 | 24.37 |
| | | 1 | 1 | 25.11 | 24.96 | 25.19 |
| | | 1 | 215 | 24.67 | 24.80 | 24.87 |
| | | 108 | 54 | 25.31 | 25.11 | 25.25 |
| | DFT-s-OFDM 64QAM | 1 | 0 | 22.91 | 22.89 | 22.95 |
| | | 1 | 216 | 22.59 | 22.61 | 22.60 |
| | | 2 | 0 | 22.99 | 22.99 | 23.03 |
| | | 2 | 215 | 22.61 | 22.70 | 22.75 |
| | | 216 | 0 | 23.72 | 23.67 | 23.77 |
| | | 1 | 1 | 23.89 | 23.94 | 23.97 |
| | | 1 | 215 | 23.57 | 23.54 | 23.61 |
| | | 108 | 54 | 23.58 | 23.60 | 23.71 |

| | | | | | | |
|---|---|---|---|---|---|---|
| | DFT-s-OFDM 256QAM | 1 | 0 | 21.66 | 21.67 | 21.73 |
| | | 1 | 216 | 21.33 | 21.30 | 21.51 |
| | | 2 | 0 | 21.55 | 21.62 | 21.76 |
| | | 2 | 215 | 21.41 | 21.26 | 21.35 |
| | | 216 | 0 | 21.88 | 21.74 | 21.84 |
| | | 1 | 1 | 21.74 | 21.66 | 21.84 |
| | | 1 | 215 | 21.35 | 21.39 | 21.47 |
| | | 108 | 54 | 21.82 | 21.86 | 21.84 |

| BW | MCS Index | Channel | | 505200 | 518598 | 531996 |
|---|---|---|---|---|---|---|
| | | Frequence (MHz) | | 2526 | 2592.99 | 2659.98 |
| 60M | DFT-s-OFDM Pi/2 BPSK | 1 | 0 | 22.92 | 22.83 | 22.84 |
| | | 1 | 161 | 22.55 | 22.51 | 22.57 |
| | | 2 | 0 | 22.92 | 22.85 | 23.02 |
| | | 2 | 160 | 22.56 | 22.39 | 22.67 |
| | | 162 | 0 | 25.74 | 25.64 | 25.82 |
| | | 1 | 1 | 26.39 | 26.20 | 26.34 |
| | | 1 | 160 | 26.03 | 25.99 | 25.93 |
| | | 81 | 40 | 26.33 | 26.31 | 26.39 |
| | DFT-s-OFDM QPSK | 1 | 0 | 22.87 | 22.81 | 22.96 |
| | | 1 | 161 | 22.46 | 22.34 | 22.65 |
| | | 2 | 0 | 22.76 | 22.82 | 22.87 |
| | | 2 | 160 | 22.60 | 22.59 | 22.64 |
| | | 162 | 0 | 25.23 | 25.22 | 25.28 |
| | | 1 | 1 | 26.25 | 26.22 | 26.27 |
| | | 1 | 160 | 25.96 | 26.02 | 25.94 |
| | | 81 | 40 | 26.33 | 26.26 | 26.21 |
| | DFT-s-OFDM 16QAM | 1 | 0 | 22.94 | 22.93 | 22.95 |
| | | 1 | 161 | 22.51 | 22.47 | 22.57 |
| | | 2 | 0 | 22.74 | 22.75 | 22.62 |
| | | 2 | 160 | 22.30 | 22.27 | 22.41 |
| | | 162 | 0 | 24.27 | 24.19 | 24.31 |
| | | 1 | 1 | 25.04 | 24.94 | 25.07 |
| | | 1 | 160 | 24.71 | 24.81 | 24.85 |
| | | 81 | 40 | 25.24 | 25.15 | 25.33 |
| | DFT-s-OFDM 64QAM | 1 | 0 | 22.87 | 22.95 | 23.01 |
| | | 1 | 161 | 22.55 | 22.63 | 22.60 |
| | | 2 | 0 | 22.92 | 22.95 | 23.10 |
| | | 2 | 160 | 22.71 | 22.70 | 22.80 |
| | | 162 | 0 | 23.79 | 23.63 | 23.72 |
| | | 1 | 1 | 23.88 | 23.94 | 23.96 |

| | | | | | | |
|---|---|---|---|---|---|---|
| | | 1 | 160 | 23.56 | 23.50 | 23.59 |
| | | 81 | 40 | 23.59 | 23.69 | 23.62 |
| | DFT-s-OFDM 256QAM | 1 | 0 | 21.70 | 21.67 | 21.76 |
| | | 1 | 161 | 21.34 | 21.38 | 21.46 |
| | | 2 | 0 | 21.58 | 21.70 | 21.66 |
| | | 2 | 160 | 21.44 | 21.24 | 21.32 |
| | | 162 | 0 | 21.87 | 21.76 | 21.74 |
| | | 1 | 1 | 21.67 | 21.61 | 21.83 |
| | | 1 | 160 | 21.32 | 21.43 | 21.48 |
| | | 81 | 40 | 21.76 | 21.89 | 21.78 |

| BW | MCS Index | Channel | | 504204 | 518598 | 532998 |
|---|---|---|---|---|---|---|
| | | Frequence (MHz) | | 2521.02 | 2592.99 | 2664.99 |
| 50M | DFT-s-OFDM Pi/2 BPSK | 1 | 0 | 22.90 | 22.79 | 22.79 |
| | | 1 | 132 | 22.52 | 22.39 | 22.51 |
| | | 2 | 0 | 23.03 | 22.88 | 22.97 |
| | | 2 | 131 | 22.57 | 22.50 | 22.65 |
| | | 128 | 0 | 25.72 | 25.62 | 25.82 |
| | | 1 | 1 | 26.39 | 26.21 | 26.30 |
| | | 1 | 131 | 26.04 | 26.07 | 26.05 |
| | | 64 | 32 | 26.33 | 26.24 | 26.41 |
| | DFT-s-OFDM QPSK | 1 | 0 | 22.88 | 22.81 | 22.91 |
| | | 1 | 132 | 22.53 | 22.43 | 22.61 |
| | | 2 | 0 | 22.80 | 22.89 | 22.86 |
| | | 2 | 131 | 22.51 | 22.68 | 22.65 |
| | | 128 | 0 | 25.19 | 25.18 | 25.32 |
| | | 1 | 1 | 26.28 | 26.20 | 26.20 |
| | | 1 | 131 | 25.95 | 25.97 | 26.00 |
| | | 64 | 32 | 26.30 | 26.24 | 26.29 |
| | DFT-s-OFDM 16QAM | 1 | 0 | 22.93 | 22.94 | 22.98 |
| | | 1 | 132 | 22.53 | 22.47 | 22.59 |
| | | 2 | 0 | 22.72 | 22.72 | 22.75 |
| | | 2 | 131 | 22.38 | 22.33 | 22.46 |
| | | 128 | 0 | 24.34 | 24.17 | 24.40 |
| | | 1 | 1 | 25.01 | 25.07 | 25.18 |
| | | 1 | 131 | 24.67 | 24.84 | 24.90 |
| | | 64 | 32 | 25.27 | 25.19 | 25.26 |
| | DFT-s-OFDM 64QAM | 1 | 0 | 22.95 | 22.85 | 23.06 |
| | | 1 | 132 | 22.52 | 22.59 | 22.60 |
| | | 2 | 0 | 23.04 | 22.99 | 23.10 |
| | | 2 | 131 | 22.73 | 22.66 | 22.69 |

| | | | | | | |
|---|---|---|---|---|---|---|
| | | 128 | 0 | 23.78 | 23.60 | 23.69 |
| | | 1 | 1 | 23.95 | 23.89 | 23.85 |
| | | 1 | 131 | 23.51 | 23.46 | 23.57 |
| | | 64 | 32 | 23.55 | 23.59 | 23.66 |
| | DFT-s-OFDM 256QAM | 1 | 0 | 21.63 | 21.65 | 21.76 |
| | | 1 | 132 | 21.30 | 21.39 | 21.37 |
| | | 2 | 0 | 21.55 | 21.73 | 21.74 |
| | | 2 | 131 | 21.47 | 21.34 | 21.27 |
| | | 128 | 0 | 21.78 | 21.73 | 21.82 |
| | | 1 | 1 | 21.71 | 21.74 | 21.86 |
| | | 1 | 131 | 21.41 | 21.38 | 21.45 |
| | | 64 | 32 | 21.75 | 21.90 | 21.87 |

| BW | MCS Index | Channel | | 503202 | 518598 | 534000 |
|---|---|---|---|---|---|---|
| | | Frequence (MHz) | | 2516.01 | 2592.99 | 2670 |
| 40M | DFT-s-OFDM Pi/2 BPSK | 1 | 0 | 22.97 | 22.84 | 22.79 |
| | | 1 | 105 | 22.49 | 22.50 | 22.57 |
| | | 2 | 0 | 22.93 | 22.97 | 22.98 |
| | | 2 | 104 | 22.56 | 22.48 | 22.55 |
| | | 100 | 0 | 25.66 | 25.72 | 25.78 |
| | | 1 | 1 | 26.37 | 26.25 | 26.32 |
| | | 1 | 104 | 26.04 | 26.04 | 26.07 |
| | | 50 | 25 | 26.34 | 26.22 | 26.40 |
| | DFT-s-OFDM QPSK | 1 | 0 | 22.99 | 22.91 | 22.94 |
| | | 1 | 105 | 22.56 | 22.47 | 22.54 |
| | | 2 | 0 | 22.82 | 22.77 | 22.78 |
| | | 2 | 104 | 22.57 | 22.65 | 22.73 |
| | | 100 | 0 | 25.24 | 25.28 | 25.25 |
| | | 1 | 1 | 26.26 | 26.29 | 26.24 |
| | | 1 | 104 | 25.95 | 26.00 | 25.88 |
| | | 50 | 25 | 26.30 | 26.23 | 26.34 |
| | DFT-s-OFDM 16QAM | 1 | 0 | 22.95 | 22.87 | 23.01 |
| | | 1 | 105 | 22.54 | 22.55 | 22.49 |
| | | 2 | 0 | 22.77 | 22.77 | 22.73 |
| | | 2 | 104 | 22.30 | 22.23 | 22.43 |
| | | 100 | 0 | 24.28 | 24.24 | 24.31 |
| | | 1 | 1 | 25.01 | 24.99 | 25.08 |
| | | 1 | 104 | 24.65 | 24.74 | 24.88 |
| | | 50 | 25 | 25.24 | 25.08 | 25.36 |
| | DFT-s-OFDM 64QAM | 1 | 0 | 22.91 | 22.87 | 23.03 |
| | | 1 | 105 | 22.57 | 22.61 | 22.52 |

| | | | | | | |
|---|---|---|---|---|---|---|
| | | 2 | 0 | 22.94 | 23.03 | 23.17 |
| | | 2 | 104 | 22.62 | 22.69 | 22.74 |
| | | 100 | 0 | 23.73 | 23.60 | 23.78 |
| | | 1 | 1 | 23.94 | 23.93 | 23.90 |
| | | 1 | 104 | 23.63 | 23.44 | 23.57 |
| | | 50 | 25 | 23.52 | 23.59 | 23.63 |
| | DFT-s-OFDM 256QAM | 1 | 0 | 21.61 | 21.67 | 21.73 |
| | | 1 | 105 | 21.39 | 21.34 | 21.49 |
| | | 2 | 0 | 21.62 | 21.73 | 21.75 |
| | | 2 | 104 | 21.37 | 21.37 | 21.28 |
| | | 100 | 0 | 21.89 | 21.77 | 21.73 |
| | | 1 | 1 | 21.67 | 21.65 | 21.84 |
| | | 1 | 104 | 21.43 | 21.44 | 21.47 |
| | | 50 | 25 | 21.87 | 21.78 | 21.84 |

| BW | MCS Index | Channel | | 502200 | 518598 | 534996 |
|---|---|---|---|---|---|---|
| | | Frequence (MHz) | | 2511 | 2592.99 | 2674.98 |
| 30M | DFT-s-OFDM Pi/2 BPSK | 1 | 0 | 22.84 | 22.82 | 22.91 |
| | | 1 | 77 | 22.48 | 22.42 | 22.53 |
| | | 2 | 0 | 23.03 | 22.91 | 23.06 |
| | | 2 | 76 | 22.57 | 22.48 | 22.55 |
| | | 75 | 0 | 25.72 | 25.69 | 25.86 |
| | | 1 | 1 | 26.35 | 26.16 | 26.34 |
| | | 1 | 76 | 26.00 | 26.08 | 25.96 |
| | | 36 | 18 | 26.40 | 26.27 | 26.45 |
| | DFT-s-OFDM QPSK | 1 | 0 | 22.93 | 22.80 | 22.96 |
| | | 1 | 77 | 22.52 | 22.40 | 22.58 |
| | | 2 | 0 | 22.72 | 22.88 | 22.86 |
| | | 2 | 76 | 22.52 | 22.66 | 22.69 |
| | | 75 | 0 | 25.20 | 25.27 | 25.28 |
| | | 1 | 1 | 26.18 | 26.20 | 26.18 |
| | | 1 | 76 | 25.94 | 26.05 | 25.90 |
| | | 36 | 18 | 26.22 | 26.23 | 26.28 |
| | DFT-s-OFDM 16QAM | 1 | 0 | 22.92 | 22.89 | 23.01 |
| | | 1 | 77 | 22.48 | 22.48 | 22.52 |
| | | 2 | 0 | 22.78 | 22.66 | 22.71 |
| | | 2 | 76 | 22.43 | 22.24 | 22.37 |
| | | 75 | 0 | 24.25 | 24.19 | 24.37 |
| | | 1 | 1 | 25.09 | 25.01 | 25.15 |
| | | 1 | 76 | 24.67 | 24.78 | 24.83 |
| | | 36 | 18 | 25.31 | 25.11 | 25.37 |
| | DFT-s-OFDM | 1 | 0 | 22.84 | 22.86 | 23.04 |

| | | | | | | |
|---|---|---|---|---|---|---|
| | 64QAM | 1 | 77 | 22.61 | 22.52 | 22.55 |
| | | 2 | 0 | 22.96 | 23.00 | 23.14 |
| | | 2 | 76 | 22.64 | 22.71 | 22.77 |
| | | 75 | 0 | 23.79 | 23.60 | 23.80 |
| | | 1 | 1 | 23.87 | 23.92 | 23.97 |
| | | 1 | 76 | 23.55 | 23.49 | 23.62 |
| | | 36 | 18 | 23.55 | 23.60 | 23.76 |
| | DFT-s-OFDM 256QAM | 1 | 0 | 21.56 | 21.57 | 21.84 |
| | | 1 | 77 | 21.38 | 21.34 | 21.43 |
| | | 2 | 0 | 21.52 | 21.68 | 21.68 |
| | | 2 | 76 | 21.36 | 21.24 | 21.32 |
| | | 75 | 0 | 21.84 | 21.84 | 21.76 |
| | | 1 | 1 | 21.77 | 21.74 | 21.73 |
| | | 1 | 76 | 21.35 | 21.36 | 21.47 |
| | | 36 | 18 | 21.73 | 21.83 | 21.77 |

| BW | MCS Index | Channel | | 501204 | 518598 | 535998 |
|---|---|---|---|---|---|---|
| | | Frequence (MHz) | | 2506.02 | 2592.99 | 2679.99 |
| 20M | DFT-s-OFDM Pi/2 BPSK | 1 | 0 | 22.83 | 22.77 | 22.93 |
| | | 1 | 50 | 22.56 | 22.53 | 22.45 |
| | | 2 | 0 | 22.90 | 22.88 | 22.94 |
| | | 2 | 49 | 22.50 | 22.52 | 22.58 |
| | | 50 | 0 | 25.65 | 25.59 | 25.80 |
| | | 1 | 1 | 26.39 | 26.22 | 26.39 |
| | | 1 | 49 | 25.93 | 26.10 | 26.05 |
| | | 25 | 12 | 26.40 | 26.32 | 26.44 |
| | DFT-s-OFDM QPSK | 1 | 0 | 22.89 | 22.91 | 22.87 |
| | | 1 | 50 | 22.51 | 22.43 | 22.52 |
| | | 2 | 0 | 22.80 | 22.82 | 22.79 |
| | | 2 | 49 | 22.60 | 22.59 | 22.62 |
| | | 50 | 0 | 25.30 | 25.28 | 25.26 |
| | | 1 | 1 | 26.26 | 26.34 | 26.24 |
| | | 1 | 49 | 25.99 | 26.00 | 25.89 |
| | | 25 | 12 | 26.29 | 26.17 | 26.23 |
| | DFT-s-OFDM 16QAM | 1 | 0 | 23.03 | 22.96 | 22.95 |
| | | 1 | 50 | 22.45 | 22.52 | 22.49 |
| | | 2 | 0 | 22.66 | 22.75 | 22.67 |
| | | 2 | 49 | 22.29 | 22.29 | 22.38 |
| | | 50 | 0 | 24.38 | 24.22 | 24.32 |
| | | 2 | 49 | 25.10 | 24.97 | 25.14 |
| | | 25 | 12 | 24.77 | 24.82 | 24.79 |

| | | | | | | |
|---|---|---|---|---|---|---|
| | | 50 | 0 | 25.31 | 25.17 | 25.32 |
| | DFT-s-OFDM 64QAM | 1 | 0 | 22.98 | 22.98 | 23.05 |
| | | 1 | 50 | 22.53 | 22.56 | 22.63 |
| | | 2 | 0 | 23.01 | 23.02 | 23.03 |
| | | 2 | 49 | 22.64 | 22.61 | 22.78 |
| | | 50 | 0 | 23.72 | 23.62 | 23.69 |
| | | 1 | 1 | 23.94 | 23.95 | 23.91 |
| | | 1 | 49 | 23.57 | 23.47 | 23.50 |
| | | 25 | 12 | 23.66 | 23.62 | 23.73 |
| | DFT-s-OFDM 256QAM | 1 | 0 | 21.60 | 21.69 | 21.77 |
| | | 1 | 50 | 21.38 | 21.36 | 21.51 |
| | | 2 | 0 | 21.54 | 21.63 | 21.70 |
| | | 2 | 49 | 21.33 | 21.29 | 21.30 |
| | | 50 | 0 | 21.89 | 21.82 | 21.81 |
| | | 1 | 1 | 21.76 | 21.73 | 21.76 |
| | | 1 | 49 | 21.40 | 21.39 | 21.38 |
| | | 25 | 12 | 21.81 | 21.86 | 21.86 |

**N66**

| n66 (SCS 15 kHz) | | | | | | |
|---|---|---|---|---|---|---|
| BW | MCS Index | RB Size | RB Offset | Low | Mid | High |
| | | Channel | | 346000 | 349000 | 352000 |
| | | Frequence (MHz) | | 1730 | 1745 | 1760 |
| 40M | DFT-s-OFDM Pi/2 BPSK | 1 | 0 | 22.71 | 22.67 | 22.71 |
| | | 1 | 215 | 22.60 | 22.69 | 22.71 |
| | | 2 | 0 | 22.63 | 22.71 | 22.85 |
| | | 2 | 214 | 22.53 | 22.61 | 22.77 |
| | | 216 | 0 | 22.60 | 22.60 | 22.77 |
| | | 1 | 1 | 23.14 | 23.28 | 23.37 |
| | | 1 | 214 | 23.07 | 23.17 | 23.29 |
| | | 108 | 54 | 23.13 | 23.19 | 23.30 |
| | DFT-s-OFDM QPSK | 1 | 0 | 22.37 | 22.34 | 22.55 |
| | | 1 | 215 | 22.18 | 22.27 | 22.40 |
| | | 2 | 0 | 22.33 | 22.26 | 22.55 |
| | | 2 | 214 | 22.24 | 22.28 | 22.42 |
| | | 216 | 0 | 22.10 | 22.08 | 22.24 |
| | | 1 | 1 | 23.32 | 23.34 | **23.40** |
| | | 1 | 214 | 23.11 | 23.22 | 23.33 |
| | | 108 | 54 | 23.27 | 23.16 | 23.32 |
| | DFT-s-OFDM 16QAM | 1 | 0 | 21.62 | 21.60 | 21.79 |
| | | 1 | 215 | 21.51 | 21.49 | 21.56 |
| | | 2 | 0 | 21.40 | 21.49 | 21.69 |
| | | 2 | 214 | 21.26 | 21.38 | 21.55 |
| | | 216 | 0 | 21.33 | 21.40 | 21.52 |
| | | 1 | 1 | 22.57 | 22.66 | 22.80 |
| | | 1 | 214 | 22.54 | 22.49 | 22.69 |
| | | 108 | 54 | 22.26 | 22.31 | 22.50 |
| | DFT-s-OFDM 64QAM | 1 | 0 | 20.91 | 20.91 | 21.13 |
| | | 1 | 215 | 20.80 | 20.83 | 20.85 |
| | | 2 | 0 | 20.92 | 20.99 | 21.18 |
| | | 2 | 214 | 21.07 | 21.06 | 21.15 |
| | | 216 | 0 | 20.90 | 20.94 | 21.10 |
| | | 1 | 1 | 21.08 | 21.06 | 21.24 |
| | | 1 | 214 | 20.92 | 20.83 | 21.07 |
| | | 108 | 54 | 20.93 | 20.90 | 21.05 |
| | DFT-s-OFDM 256QAM | 1 | 0 | 18.90 | 18.83 | 19.12 |
| | | 1 | 215 | 18.90 | 18.83 | 19.03 |
| | | 2 | 0 | 18.88 | 18.86 | 19.10 |
| | | 2 | 214 | 18.90 | 18.93 | 18.96 |

| | | | | | | |
|---|---|---|---|---|---|---|
| | | 216 | 0 | 18.92 | 18.80 | 18.99 |
| | | 1 | 1 | 18.95 | 18.87 | 19.13 |
| | | 1 | 214 | 18.82 | 18.84 | 19.09 |
| | | 108 | 54 | 18.92 | 18.87 | 18.96 |

| BW | MCS Index | Channel | | 345000 | 349000 | 353000 |
|---|---|---|---|---|---|---|
| | | Frequence (MHz) | | 1725 | 1745 | 1765 |
| 30M | DFT-s-OFDM Pi/2 BPSK | 1 | 0 | 22.64 | 22.52 | 22.56 |
| | | 1 | 159 | 22.55 | 22.65 | 22.56 |
| | | 2 | 0 | 22.52 | 22.64 | 22.75 |
| | | 2 | 158 | 22.38 | 22.60 | 22.66 |
| | | 160 | 0 | 22.56 | 22.45 | 22.71 |
| | | 1 | 1 | 23.12 | 23.24 | 23.27 |
| | | 1 | 158 | 22.98 | 23.10 | 23.24 |
| | | 80 | 40 | 23.03 | 23.14 | 23.28 |
| | DFT-s-OFDM QPSK | 1 | 0 | 22.24 | 22.20 | 22.54 |
| | | 1 | 159 | 22.13 | 22.26 | 22.32 |
| | | 2 | 0 | 22.20 | 22.11 | 22.43 |
| | | 2 | 158 | 22.15 | 22.21 | 22.32 |
| | | 160 | 0 | 22.08 | 21.98 | 22.18 |
| | | 1 | 1 | 23.21 | 23.24 | 23.29 |
| | | 1 | 158 | 23.10 | 23.08 | 23.28 |
| | | 80 | 40 | 23.15 | 23.05 | 23.29 |
| | DFT-s-OFDM 16QAM | 1 | 0 | 21.53 | 21.45 | 21.68 |
| | | 1 | 159 | 21.44 | 21.48 | 21.47 |
| | | 2 | 0 | 21.25 | 21.47 | 21.55 |
| | | 2 | 158 | 21.11 | 21.33 | 21.53 |
| | | 160 | 0 | 21.26 | 21.27 | 21.50 |
| | | 1 | 1 | 22.45 | 22.60 | 22.74 |
| | | 1 | 158 | 22.49 | 22.34 | 22.67 |
| | | 80 | 40 | 22.12 | 22.28 | 22.41 |
| | DFT-s-OFDM 64QAM | 1 | 0 | 20.76 | 20.81 | 21.10 |
| | | 1 | 159 | 20.73 | 20.78 | 20.73 |
| | | 2 | 0 | 20.87 | 20.86 | 21.15 |
| | | 2 | 158 | 21.05 | 20.97 | 21.12 |
| | | 160 | 0 | 20.76 | 20.83 | 21.07 |
| | | 1 | 1 | 21.04 | 21.03 | 21.19 |
| | | 1 | 158 | 20.81 | 20.80 | 20.92 |
| | | 80 | 40 | 20.91 | 20.81 | 20.97 |
| | DFT-s-OFDM 256QAM | 1 | 0 | 18.77 | 18.79 | 19.11 |
| | | 1 | 159 | 18.76 | 18.79 | 18.95 |
| | | 2 | 0 | 18.75 | 18.75 | 18.95 |

| | | | | | | |
|---|---|---|---|---|---|---|
| | | 2 | 158 | 18.75 | 18.85 | 18.93 |
| | | 160 | 0 | 18.81 | 18.77 | 18.95 |
| | | 1 | 1 | 18.87 | 18.84 | 18.99 |
| | | 1 | 158 | 18.73 | 18.81 | 19.00 |
| | | 80 | 40 | 18.77 | 18.82 | 18.88 |

| BW | MCS Index | Channel | | 344000 | 349000 | 354000 |
|---|---|---|---|---|---|---|
| | | Frequence (MHz) | | 1720 | 1745 | 1770 |
| 20M | DFT-s-OFDM Pi/2 BPSK | 1 | 0 | 22.60 | 22.66 | 22.66 |
| | | 1 | 105 | 22.59 | 22.59 | 22.63 |
| | | 2 | 0 | 22.51 | 22.66 | 22.73 |
| | | 2 | 104 | 22.40 | 22.60 | 22.73 |
| | | 100 | 0 | 22.52 | 22.49 | 22.69 |
| | | 1 | 1 | 23.02 | 23.27 | 23.23 |
| | | 1 | 104 | 23.00 | 23.15 | 23.22 |
| | | 50 | 25 | 22.99 | 23.04 | 23.18 |
| | DFT-s-OFDM QPSK | 1 | 0 | 22.29 | 22.23 | 22.52 |
| | | 1 | 105 | 22.03 | 22.14 | 22.30 |
| | | 2 | 0 | 22.26 | 22.23 | 22.41 |
| | | 2 | 104 | 22.12 | 22.18 | 22.38 |
| | | 100 | 0 | 22.04 | 21.97 | 22.22 |
| | | 1 | 1 | 23.26 | 23.29 | 23.37 |
| | | 1 | 104 | 23.06 | 23.17 | 23.30 |
| | | 50 | 25 | 23.14 | 23.04 | 23.27 |
| | DFT-s-OFDM 16QAM | 1 | 0 | 21.58 | 21.48 | 21.73 |
| | | 1 | 105 | 21.36 | 21.41 | 21.42 |
| | | 2 | 0 | 21.32 | 21.42 | 21.60 |
| | | 2 | 104 | 21.14 | 21.28 | 21.50 |
| | | 100 | 0 | 21.32 | 21.38 | 21.45 |
| | | 1 | 1 | 22.49 | 22.53 | 22.70 |
| | | 1 | 104 | 22.41 | 22.42 | 22.63 |
| | | 50 | 25 | 22.25 | 22.25 | 22.40 |
| | DFT-s-OFDM 64QAM | 1 | 0 | 20.89 | 20.81 | 21.03 |
| | | 1 | 105 | 20.68 | 20.82 | 20.73 |
| | | 2 | 0 | 20.90 | 20.98 | 21.14 |
| | | 2 | 104 | 20.98 | 21.01 | 21.13 |
| | | 100 | 0 | 20.88 | 20.87 | 20.98 |
| | | 1 | 1 | 21.00 | 21.03 | 21.10 |
| | | 1 | 104 | 20.81 | 20.81 | 21.06 |
| | | 50 | 25 | 20.88 | 20.87 | 20.91 |
| | DFT-s-OFDM 256QAM | 1 | 0 | 18.79 | 18.69 | 18.99 |
| | | 1 | 105 | 18.83 | 18.79 | 18.93 |

| | | | | | | |
|---|---|---|---|---|---|---|
| | | 2 | 0 | 18.81 | 18.83 | 19.08 |
| | | 2 | 104 | 18.88 | 18.88 | 18.85 |
| | | 100 | 0 | 18.77 | 18.79 | 18.86 |
| | | 1 | 1 | 18.82 | 18.83 | 19.05 |
| | | 1 | 104 | 18.80 | 18.69 | 18.99 |
| | | 50 | 25 | 18.82 | 18.75 | 18.95 |

| BW | MCS Index | Channel | | 343500 | 349000 | 354500 |
|---|---|---|---|---|---|---|
| | | Frequence (MHz) | | 1717.5 | 1745 | 1772.5 |
| 15M | DFT-s-OFDM Pi/2 BPSK | 1 | 0 | 22.61 | 22.52 | 22.64 |
| | | 1 | 78 | 22.47 | 22.67 | 22.66 |
| | | 2 | 0 | 22.51 | 22.65 | 22.79 |
| | | 2 | 77 | 22.39 | 22.55 | 22.65 |
| | | 75 | 0 | 22.54 | 22.51 | 22.76 |
| | | 1 | 1 | 23.07 | 23.15 | 23.29 |
| | | 1 | 77 | 22.95 | 23.07 | 23.19 |
| | | 36 | 18 | 23.06 | 23.14 | 23.23 |
| | DFT-s-OFDM QPSK | 1 | 0 | 22.33 | 22.31 | 22.51 |
| | | 1 | 78 | 22.06 | 22.12 | 22.38 |
| | | 2 | 0 | 22.32 | 22.21 | 22.52 |
| | | 2 | 77 | 22.12 | 22.23 | 22.38 |
| | | 75 | 0 | 22.09 | 22.05 | 22.15 |
| | | 1 | 1 | 23.25 | 23.27 | 23.28 |
| | | 1 | 77 | 23.07 | 23.20 | 23.24 |
| | | 36 | 18 | 23.16 | 23.04 | 23.24 |
| | DFT-s-OFDM 16QAM | 1 | 0 | 21.55 | 21.54 | 21.74 |
| | | 1 | 78 | 21.40 | 21.41 | 21.52 |
| | | 2 | 0 | 21.36 | 21.35 | 21.63 |
| | | 2 | 77 | 21.18 | 21.37 | 21.41 |
| | | 75 | 0 | 21.21 | 21.29 | 21.40 |
| | | 1 | 1 | 22.56 | 22.54 | 22.65 |
| | | 1 | 77 | 22.47 | 22.43 | 22.59 |
| | | 36 | 18 | 22.17 | 22.20 | 22.40 |
| | DFT-s-OFDM 64QAM | 1 | 0 | 20.89 | 20.87 | 21.04 |
| | | 1 | 78 | 20.77 | 20.77 | 20.83 |
| | | 2 | 0 | 20.82 | 20.91 | 21.06 |
| | | 2 | 77 | 20.98 | 20.92 | 21.04 |
| | | 75 | 0 | 20.80 | 20.87 | 21.08 |
| | | 1 | 1 | 21.04 | 21.02 | 21.10 |
| | | 1 | 77 | 20.85 | 20.72 | 20.92 |
| | | 36 | 18 | 20.83 | 20.86 | 20.92 |
| | DFT-s-OFDM | 1 | 0 | 18.82 | 18.78 | 19.08 |

| | | | | | | |
|---|---|---|---|---|---|---|
| | 256QAM | 1 | 78 | 18.88 | 18.79 | 18.91 |
| | | 2 | 0 | 18.75 | 18.85 | 18.95 |
| | | 2 | 77 | 18.80 | 18.86 | 18.84 |
| | | 75 | 0 | 18.83 | 18.65 | 18.96 |
| | | 1 | 1 | 18.84 | 18.72 | 19.00 |
| | | 1 | 77 | 18.71 | 18.73 | 18.99 |
| | | 36 | 18 | 18.81 | 18.72 | 18.92 |

| BW | MCS Index | Channel | | 343000 | 349000 | 355000 |
|---|---|---|---|---|---|---|
| | | Frequence (MHz) | | 1715 | 1745 | 1775 |
| 10M | DFT-s-OFDM Pi/2 BPSK | 1 | 0 | 22.65 | 22.52 | 22.65 |
| | | 1 | 51 | 22.58 | 22.58 | 22.58 |
| | | 2 | 0 | 22.60 | 22.65 | 22.79 |
| | | 2 | 50 | 22.47 | 22.54 | 22.74 |
| | | 50 | 0 | 22.56 | 22.49 | 22.62 |
| | | 1 | 1 | 23.04 | 23.24 | 23.33 |
| | | 1 | 50 | 22.94 | 23.08 | 23.26 |
| | | 25 | 12 | 23.07 | 23.15 | 23.21 |
| | DFT-s-OFDM QPSK | 1 | 0 | 22.26 | 22.27 | 22.45 |
| | | 1 | 51 | 22.05 | 22.26 | 22.38 |
| | | 2 | 0 | 22.32 | 22.18 | 22.54 |
| | | 2 | 50 | 22.09 | 22.15 | 22.28 |
| | | 50 | 0 | 22.09 | 22.06 | 22.17 |
| | | 1 | 1 | 23.23 | 23.27 | 23.34 |
| | | 1 | 50 | 23.04 | 23.20 | 23.27 |
| | | 25 | 12 | 23.24 | 23.03 | 23.27 |
| | DFT-s-OFDM 16QAM | 1 | 0 | 21.49 | 21.58 | 21.71 |
| | | 1 | 51 | 21.36 | 21.34 | 21.45 |
| | | 2 | 0 | 21.25 | 21.45 | 21.64 |
| | | 2 | 50 | 21.25 | 21.34 | 21.54 |
| | | 50 | 0 | 21.30 | 21.35 | 21.51 |
| | | 1 | 1 | 22.45 | 22.63 | 22.76 |
| | | 1 | 50 | 22.51 | 22.47 | 22.55 |
| | | 25 | 12 | 22.18 | 22.29 | 22.47 |
| | DFT-s-OFDM 64QAM | 1 | 0 | 20.78 | 20.80 | 21.05 |
| | | 1 | 51 | 20.76 | 20.76 | 20.75 |
| | | 2 | 0 | 20.89 | 20.87 | 21.12 |
| | | 2 | 50 | 20.94 | 20.91 | 21.05 |
| | | 50 | 0 | 20.85 | 20.90 | 21.07 |
| | | 1 | 1 | 21.07 | 21.01 | 21.21 |
| | | 1 | 50 | 20.78 | 20.73 | 21.04 |
| | | 25 | 12 | 20.90 | 20.87 | 21.03 |

| | | | | | | |
|---|---|---|---|---|---|---|
| | DFT-s-OFDM 256QAM | 1 | 0 | 18.82 | 18.73 | 19.04 |
| | | 1 | 51 | 18.82 | 18.68 | 18.95 |
| | | 2 | 0 | 18.86 | 18.72 | 18.97 |
| | | 2 | 50 | 18.83 | 18.82 | 18.85 |
| | | 50 | 0 | 18.79 | 18.78 | 18.86 |
| | | 1 | 1 | 18.84 | 18.79 | 19.09 |
| | | 1 | 50 | 18.71 | 18.71 | 19.02 |
| | | 25 | 12 | 18.83 | 18.83 | 18.82 |

| BW | MCS Index | Channel | | 342500 | 349000 | 355500 |
|---|---|---|---|---|---|---|
| | | Frequence (MHz) | | 1712.5 | 1745 | 1777.5 |
| 5M | DFT-s-OFDM Pi/2 BPSK | 1 | 0 | 22.61 | 22.56 | 22.58 |
| | | 1 | 24 | 22.59 | 22.59 | 22.70 |
| | | 2 | 0 | 22.50 | 22.56 | 22.83 |
| | | 2 | 23 | 22.52 | 22.57 | 22.63 |
| | | 25 | 0 | 22.58 | 22.45 | 22.71 |
| | | 1 | 1 | 23.04 | 23.16 | 23.33 |
| | | 1 | 23 | 22.92 | 23.13 | 23.21 |
| | | 12 | 6 | 23.07 | 23.15 | 23.26 |
| | DFT-s-OFDM QPSK | 1 | 0 | 22.31 | 22.26 | 22.46 |
| | | 1 | 24 | 22.04 | 22.16 | 22.28 |
| | | 2 | 0 | 22.29 | 22.11 | 22.46 |
| | | 2 | 23 | 22.15 | 22.20 | 22.32 |
| | | 25 | 0 | 21.96 | 21.97 | 22.13 |
| | | 1 | 1 | 23.31 | 23.31 | 23.28 |
| | | 1 | 23 | 23.02 | 23.15 | 23.25 |
| | | 12 | 6 | 23.17 | 23.10 | 23.27 |
| | DFT-s-OFDM 16QAM | 1 | 0 | 21.54 | 21.51 | 21.78 |
| | | 1 | 24 | 21.36 | 21.38 | 21.51 |
| | | 2 | 0 | 21.28 | 21.37 | 21.63 |
| | | 2 | 23 | 21.21 | 21.27 | 21.45 |
| | | 25 | 0 | 21.22 | 21.39 | 21.49 |
| | | 1 | 1 | 22.55 | 22.55 | 22.73 |
| | | 1 | 23 | 22.44 | 22.41 | 22.60 |
| | | 12 | 6 | 22.18 | 22.21 | 22.41 |
| | DFT-s-OFDM 64QAM | 1 | 0 | 20.80 | 20.78 | 21.06 |
| | | 1 | 24 | 20.72 | 20.73 | 20.72 |
| | | 2 | 0 | 20.90 | 20.85 | 21.04 |
| | | 2 | 23 | 21.03 | 21.04 | 21.00 |
| | | 25 | 0 | 20.82 | 20.79 | 21.03 |
| | | 1 | 1 | 21.00 | 20.97 | 21.13 |